### LAND RECLAMATION COMMISSION

### STATE OF MISSOURI

P.O. BOX 176 JEFFERSON CITY, MISSOURI 65102 573-751-4041

## Permit to Engage in Surface Mining

LAND RECLAMATION COMMISSION

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• • • • • • •	• •		
proposed mining operation(s) will b	oe on 147	acres, more or less.	
The locations of the operation(s) un-	der this permit is/are as	follows: Renewal	
•	•		
	in the application, a permit is herebolic clay proposed mining operation(s) will b	in the application, a permit is hereby granted to engage in clay in the state of Misson proposed mining operation(s) will be on 147	Pursuant to "The Land Reclamation Act," RSMo, 2001, and on conformity with the statements in the application, a permit is hereby granted to engage in surface mining of clay in the state of Missouri. The extent of the proposed mining operation(s) will be on 147 acres, more or less.  The locations of the operation(s) under this permit is/are as follows: Renewal

This permit may be suspended or revoked upon violation of any or all of the conditions set forth in "The Land Reclamation Act," RSMo. 2001, or in such rules and regulations as are promulgated pursuant thereto by the Land Reclamation Commission.

IN WITNESS WHEREOF I have hereunto set my hand this

18th

day of

October

2004

Land Reclamation Commission

Permit No. 0118 10/18/2004 Effective Date **Expiration Date** 07/31/2005 MO 780-1122 (6-95)

Company Name A.P. GREEN REFRACTORIES, INC.

Permit Number 0118 Expiration Date - 07/31/2005

County	Section	Township	Range	Acres	Acres	Total	Site/Stream Name	Site
				Renewed	New	Acres		Number
Audrain	33	52N	08W	51	0	51	Blum/Sieger	1153
Callaway	01	48N	09W	25	0	25	Harrison S.S.	0964
Franklin	20	42N	03W	3	0	3	Wilson Heirs #3	0853
Gasconade	25, 30	43N	05W, 06W	24	0	24	Bueker	0698
Gasconade	30, 31	43N	05W	6	0	6	Farnberg-Larimore #1	1648
Gasconade	31	42N	05W	8	0	8	Holt Estate	0855
Maries	23	41N	07W	8	0	8	Baker S.	0856
Maries	21	41N	07W	4	0	4	Danuser	0150
Montgomery	06	47N	04W	5	0	5	Chicago-Retort	0148
Osage	21	43N	08W	5	0	5	Vuilcott #1	0858
Phelps	08	38N	07W	5	0	5	Hance Pit 1 & 2	0156
Warren	34	47N	02W	3	0	3	Hummell #2	1649
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P.O. BOX 176

7-3/05

PERMIT RENEWAL FORM FOR INDUSTRIAL MINERAL MANES 1 8 2004 JEFFERSON CITY, MO 65102-0176 PORATION, COMPANY, PARTNERSHIP OR INDIVIDUAL MISSOURI LANDTE RECLAMATION COMMISSION A.P. Green Industries ADDSESS ZIP CODE 65251 **Fulton** 1301 Westminster Avenue CONTACT PERSON TELEPHONE 573.642.8787 x 25 David Keller FEES: COMPLETE SECTION I OR SECTION II Section I. Fees: Open pit operators and those mining more than five thousand (5,000) tons of sand and/or gravel: 1. To compute the site fee complete the columns and lines below: For sites operated less than six (6) SITE NAME OR NUMBER (add a separate sheet for Mark each month that the site will be months per permit year pay \$150.00 additional sites) operated during the permit year For sites operated six (6) months or more per permit year pay \$300.00 Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec \$  $\overline{2}$ . Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec \$ 3. Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Scp, Oct, Nov, Dcc S Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec 4. S Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec S 6. Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec \$ 7. Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec \$ 8. Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec 8 9 Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec \$ Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec 10. \$ TOTAL SITE FEE . 2. Acreage fee: \$5 X /46/9 number of acres bonded-<del>730.00</del> 735 500.00 3. Annual permit fee: 80500 4. Total Fee: Add totals from 1, 2, and 3 -NOTE: If Total Fee exceeds \$2,500.00 then pay only -----\$2,500.00 SECTION II. FEES: Sand and/or gravel operators mining less than five thousand (5,000) tons per year: 1. Annual Permit Fee-----300.00 ٠S aud Keller Appeared before me this  $\underline{\mathcal{G}}$ day of to me personally known, who executed the above as their free acts and deeds NOTARY PUBLIC EMBOSSER SEAL COUNTY (OR CITY OF ST. LOUIS) MU Ludrain SUBSCRIBED AND SWORN BEFORE ME, THIS RUBBER STAMP CLEAR AREA BELOW MY COMMISSION EX ANNA LEE MARTIN NOTARY PUBLIC - STATE OF MISSOURI MY COMMISSION EXPIRES 10/6/2004 **AUDRAIN COUNTY** FOR DEPARTMENT USE ONLY APPROVED BY PERMIT NUMBER EXPIRATION DATE

0118

MISSOURI DEPARTMENT C NATURAL RESOURCES AUG 1

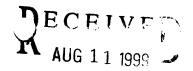
NOTE: Each site must be sown on a map and be included in a public notice and an approved mine plan.

# LAND RECLAMATION COMMISSION

MISSOURI LAND JEFFERSON CIT

RECLAMATION COMMISSION 65102 SITE INFORMATION FORM PERMIT NUMBER SITE NAME OR NUMBER 118 S. Baker COMPANY NAME A. P. Green Refractories, Inc. COUNTY 1/4 SECTION SECTION **SE 1/4** Maries **TOWNSHIP** RANGE **ACRES** 41 N 7 W RIVER OR STREAM NAME (FOR IN-STREAM ACRES) MINERAL COMMODITY ESTIMATED TONS/YEAR (FOR GRAVEL SITES) Fire Clay NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE) Mr. Danny Schaeperkoetter **ADDRESS RFD #1** STATE ZIP CODE Bland MO 65014 DATE OF AGREEMENT SOURCE OF RIGHT TO MINE (CHECK ONE): MINERAL DEED LEASE **WARRANTY DEED VERBAL AGREEMENT** OTHER (DESCRIBE): MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE) A. P. Green Refractories, Inc. ADDRESS P.O. Box 430 STATE ZIP CODE CITY **Fulton** 65251 Missouri DATE OF AGREEMENT SOURCE OF RIGHT TO MINE (CHECK ONE): **MINERAL DEED LEASE** 08/04/48 **WARRANTY DEED VERBAL AGREEMENT** OTHER (DESCRIBE):

# MISSOURI DEPARTMENT OF NATULE RESOURCES LAND RECLAMATION COMMISSION



### PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

TENNIT AFFEIGATION FOR INDUSTRI		MISSOURITAND
TYPE OF PLAN (CHECK ONE):		RECLAMATION CONVISCON
SHORT TERM, FOR ONE PERMIT YEAR		
X LONG TERM, FOR PERIOD THROUGH DATE:	12/31/2050	
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	G (BY APPLICANT OR PRIOR OPERATOR), INCLUDING S	OIL, VEGETATION, AND TOPOGRAPHY.
The soil type is loam. Vegetation consist of permit area. The topography is level with les		d species. No timber is located on the
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	MISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
	! INCHES	YES X NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVA	AL	
Prior to topsoil removal and immediately fol control measures will be installed including basins in any combination depending on site scrapers and/or bulldozers. The topsoil will surficial material from all areas to be disturb	straw bale dikes, silt fences, rock of e specific conditions. Topsoil will be be stored near the pit within the po	check dams or sediment be removed using rubber-tired ermitted pit area. We will remove the
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE	E AND PROTECTION	
Surficial material will be stored in gently slo	ping piles and will be seeded if ned	cessary with a cover crop

DESCRIBE METHOD	S AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL			
Spoil will be stockpiled adjacent to the excavation and within the permit boundary, Upon the completion of mining the spoil will be pushed or hauled back into the final excavation. The spoil will be covered by water as part of the final reclamation.				
C. ACID MAT	ERIALS			
DESCRIBE METHOD	S AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)			
None				
PIT INFORMA	ATION (GIVE ALL DIMENSIONS IN FEET)			
DESCRIBE LOCATION	IN AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS			
(See sit	e maps)			
YES	NO			
X	Will any averyation he at an within fifty fact (FO!) of the right of year of any public road?			
	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?			
	X Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and			
	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may			
	start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet			
	or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)			
ļ <sub>[</sub>				
	Will any excavation start at or within fifty feet (50') of any property line?  (NOTE: If the answer is "yes", a safety barrier may be needed.)			
	Will any excavation start at or within fifty feet (50') of any property line?  (NOTE: If the answer is "yes", a safety barrier may be needed.) ECFIVF  JUL 0 6 1999  Page 2			
MO 780-1327 (12-91)	JUL 0 6 1999 D Page 2			

B. SPOIL

MISSOURI LAND RECLAMATION COMMISSION

RECLAMATION PLAN - 10 CSR 40-10.0 2)	- JUE 0 6 7 J9	U		
A. REVEGETATION (Attach additional sheets		MISSOURI LAND		
REVEGETATION MIX #1	PURPOSE OR LAND USE	RECLAMATION COMMIS	NEEDING OR PLANT TIME	
Mixture #1	Agricultur		Fall	

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

CEIAF

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDING SPECIES

POUNDS/ACRE

TREE OR SHRUB SPECIE

STEMS/ACRE

Tall Fescue
Red Clover
Lespediza
Wheat or Oats

30

VEGETATION MIX #2	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
Mixture #2	Agriculture	Spring

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIE	STEMS/ACRE
Orchard Grass Timothy Korean Lespedeza Wheat or Oats Serecea Lespedeza (On Slopes)	10 10 6 30 20		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

### B. GRADING

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. A small impoundment will be left by the final phase of mining. The impoundment will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion. In no case will the reclaimed topography exceed a 3:1 slope.

### C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

### **GRADING**

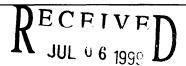
Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into dams to create impoundments. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

### REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

### REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.



MISSOURI LAND
RECLAMATION COMMISSION

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"		
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:	
Wildlife (forest or other habitat with livestock excluded)	0	
Agricultural (pasture, cropland, and horticultural)	6	
Development (residential, industrial, and recreational)	0	
Water impoundments (for wildlife, agricultural, or development)	2	

MO 780-1327 (12-91)

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By my signature, I attest to the following:

MISSOURI LAND
RECLAMATION COMMISSION

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICANT		TITLE	
is turl The	David J. Keller	Mining Supervisor - Weste	rn District Mines
NOTARY PUBLIC EMBOSSER SEAL	STATE		COUNTY (OR CITY OF ST. LOUIS)
	Missouri		Callaway
	SUBSCRIBED AND SWORN BEFORE M	E, THIS	USE RUBBER STAMP IN
	10th DAY OF Augu		CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE		
	Lange 1 de mars		
~ ~	'   '   '   '   '   '   '   '   '   '		OF MISSOURI
	NOTARY PUBLIC NAME (TYPED OR PR	INTED) CALLA	WAY COUNTY
	Karen S. Luther	MY COMMISSIO	N EXPIRES JULY 18, 2003
DATE APPRO		OVED PERMIT NUMBER	
	SUBSCRIBED AND SWORN BEFORE M  10th DAY OF Augu  NOTARY PUBLIC SIGNATURE  KARW S LUCKW  NOTARY PUBLIC NAME (TYPED OR PR  Karen S. Luther	St 19 99  MY COMMISSION KARET EXPIRES NOTA 7/18/18/18 CALLAN MY COMMISSION	USE RUBBER STAMP IN

ERSLINKMAN 326 •

Farms - Homes - Commercial - Acreage

# ELCH REAL ESTATE



JOHN and DEE WELCH

Office (314) 265 - 385 Home (314) 699 - 4223

383 1229

Property

S. Baker

Realtors

Hwy. 68 North

YIRCIL Smith RANGE 41 TOWNSHIP OSAGE COUNTY VERNON

GASCONADE COUNTY

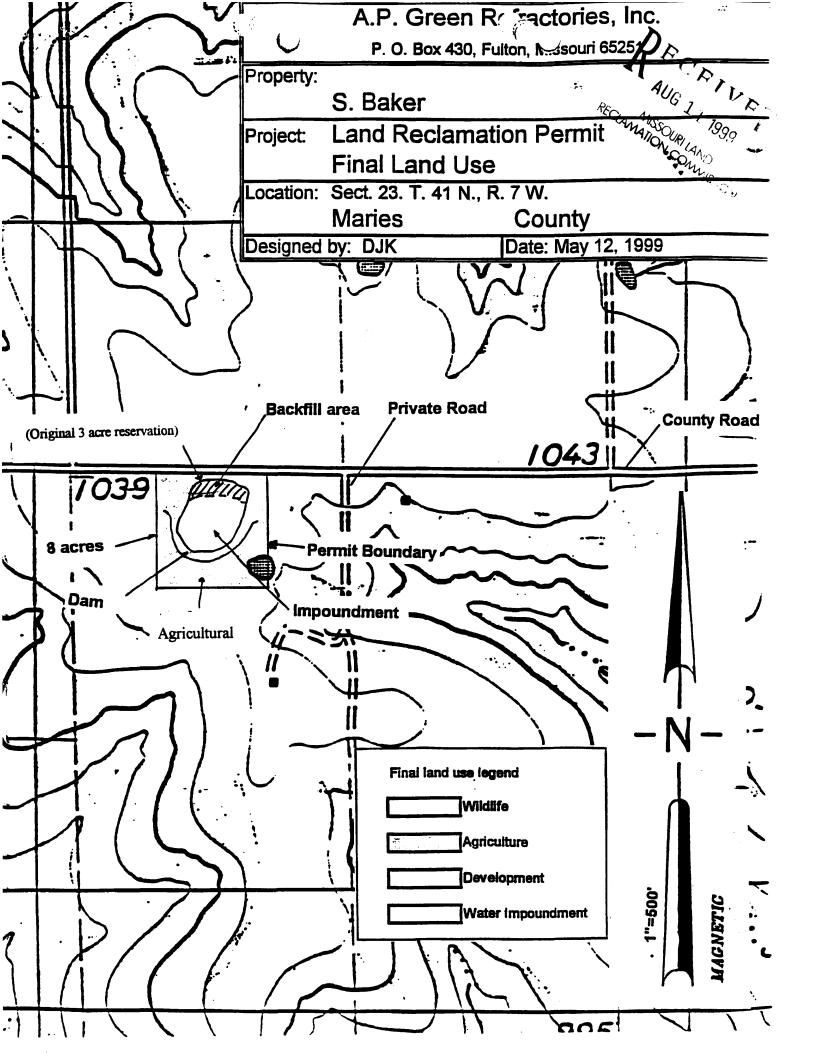
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MISSOURI LAND RECLAMATION COMMISSION

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ALL RIGHTS RESERVED

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# MISSOURI DEPARTMENT C

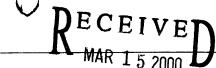
LAND RECLAMATION COMMISSION

JEFFERSON CITY, MO 65102

P.O. BOX 176

SITE INFORMATION FORM	MISSOURI LAND	
SITE NAME OR NUMBER	RECLAMATION COMMISSION PERI	MIT NUMBER
Blum/Sieger		118
COMPANY NAME		
A. P. Green Refractories, Inc.		
COUNTY	1/4 SECTION	SECTION
Audrain	NW,SE and SW 1/4	33
TOWNSHIP	RANGE	ACRES
52 N	8 W	57
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		
MINERAL COMMODITY	ESTIMA	ATED TONS/YEAR (FOR GRAVEL SITES)
Fire Clay		
		· · · · · · · · · · · · · · · · · · ·
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)		
A. P. Green Industries, Inc.		
ADDRESS		
P. O. Box 430		
CITY	STATE	ZIP CODE
Fulton	МО	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
MINERAL DEED	LEASE	
WARRANTY DEED	VERBAL AGREEMENT	L
OTHER (DESCRIBE):		
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)		
A. P. Green Refractories, Inc.		
ADDRESS		
P.O. Box 430		
CITY	STATE	ZIP CODE
Fulton	Missouri	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
		12/29/50
MINERAL DEED	LEASE	05/03/71
X WARRANTY DEED	VERBAL AGREEMENT	L
OTHER (DESCRIBE):		
NOTE: Each site must be sown on a map and be included in a	public notice and an approved mine plan.	

# MISSOURI DEPARTMENT OF NATUR' RESOURCES LAND RECLAMATION COMMISSION



PERMIT AP	PLICATION	FOR INDUSTRIAL	MINERAL	MINES

TYPE OF PLAN (CHECK ONE): MISSOURI LAND SHORT TERM, FOR ONE PERMIT YEAR RECLAMATION COMMISSION 08/01/2039 LONG TERM, FOR PERIOD THROUGH DATE: DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION, AND TOPOGRAPHY The site is primarily utilized to produce row crops. A small number of grass or timbered draws exist on the site. Soil are primarily clay loams and less than 12 inches deep. Slopes are generally 5 % or less except in or near the drainage draws. OPERATION PLAN - 10 CSR 40-10.020(2)(D)1. AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE? YES X NO -12 **INCHES** DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL Prior to topsoil removal and immediately following any clearing of vegetation, appropriate sediment control measures will be installed including straw bale dikes, silt fences, rock check dams or sediment basins in any combination depending on site specific conditions. Topsoil will be removed using rubber-tired scrapers and/or bulldozers. The topsoil will be stored near the pit within the permitted pit area. We will remove the surficial material from all areas to be disturbed before mining or stripping begins. DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION Surficial material will be stored in gently sloping piles and will be seeded if necessary with a cover crop to control any erosion.

### B. SPOIL

DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

These deposits are continuous and bedded so that we generally have an adjoining mined out section where spoil is deposited and stored. Spoil is removed from the active site by front-end loaders and trucks and hauled to the inactive site. Should no previously mined out site exist the spoil the spoil will be temporarily stored where it can be dozed back into the excavation when mining is complete.

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	MISSOURI LAND RECLAMATION COMMISSION
C. ACID MATERIALS	
DESCRIBE METHODS AND EQUI	PMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED. WRITE "NONE" BELOW)
None	
PIT INFORMATION (G	IVE ALL DIMENSIONS IN FEET)
	NTATION OF PIT. IF NOT CLEAR ON SITE MAPS
(See site maps)	
YES NO	
X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and
	public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet
	or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is
	greater, unless a variance is granted by the Commission.)
X	Will any excavation start at or within fifty feet (50') of any property line?
	(NOTE. If the answer is "yes", a safety barrier may be needed.)

### RECLAMATION PLAN - 10 CSR 40-10.04

### A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #1 PURPOSE OR LAND USE

Mixture #1

Row Crop

B. SEEDING OR PLANT TIME

Fall

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Generally tilled with typical agricultural farming equipment and planted or seed with equipment customarily used in row crop production.

MISSOURI LAND

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients and nu

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPEC	CIES STEMS/ACRE
Corn Grain Sorgum Wheat Soybeans	15 8 100 60		
VEGETATION MIX #2	PURPOSI	E OR LAND USE	B. SEEDING OR PLANTING TIME
Mixture #2	Pasture		Spring

### DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Alfalfa	10		
Orchard Grass	10		
Timothy	6	:	
Wheat or Oats	30		
Serecea Lespedeza	20	1	
(On Slopes)			

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

### **B. GRADING**

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. Impoundments will be left by the final phase of mining. The impoundment will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion. In no case will the reclaimed topography exceed a 3:1 slope.

MISSOURI LAND
RECTAMATION GOMMISSION

### C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

**GRADING** 

Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into dams to create impoundments. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

### REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"	<del></del>
D USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	0
Agricultural (pasture, cropland, and horticultural)	42
Development (residential, industrial, and recreational)	2
Water impoundments (for wildlife, agricultural, or development)	13

By my signature, I attest to the following:

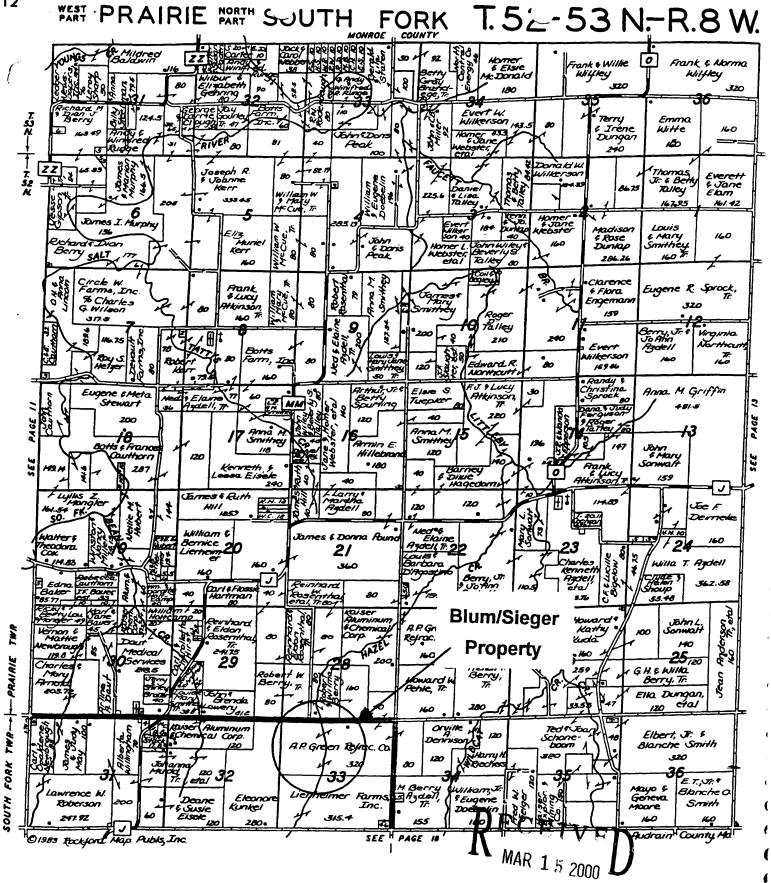
- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

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MISSOURI LAND
RECLAMATION COMMISSION

SIGNATURE OF APPLICANT	_	TITLE	Ted o	ryiso			
NOTARY PUBLIC EMBOSSER SEAL	STATE			Ø		COUNTY (OR CITY OF	F ST. LOUIS)
	MISSOURI					Calleva	<b>y</b>
	SUBSCRIBED AND SWORI			2000	17	USE RUBBER S	
		2/13/00				CHEMIS: 1	
	NOTARY PUBLIC SIGNATU	JRE	MY CO	MMISSION		OTARY F	
	Kan & Luts	£	EXPIRI	ES	ST	ATE OF N	MISSOURI
	Tues & July		7/	18/2003		LLAWAY	1
	NOTARY PUBLIC NAME (T	•		MY	COM	MISSION EXPI	RES JULY 18, 200
	KUTTA 3 LUTA			DED. 4.7 11141DE		<u> L</u>	
APPROVED BY (DIRECTOR'S REPRESENTATIVE)		DATE APPROVED		PERMIT NUMBE	:K		
Keller Boy		6-1-00		0118			





FEDERAL LAND BANK ASSOCIATION OF EAST CENTRAL MISSOURI

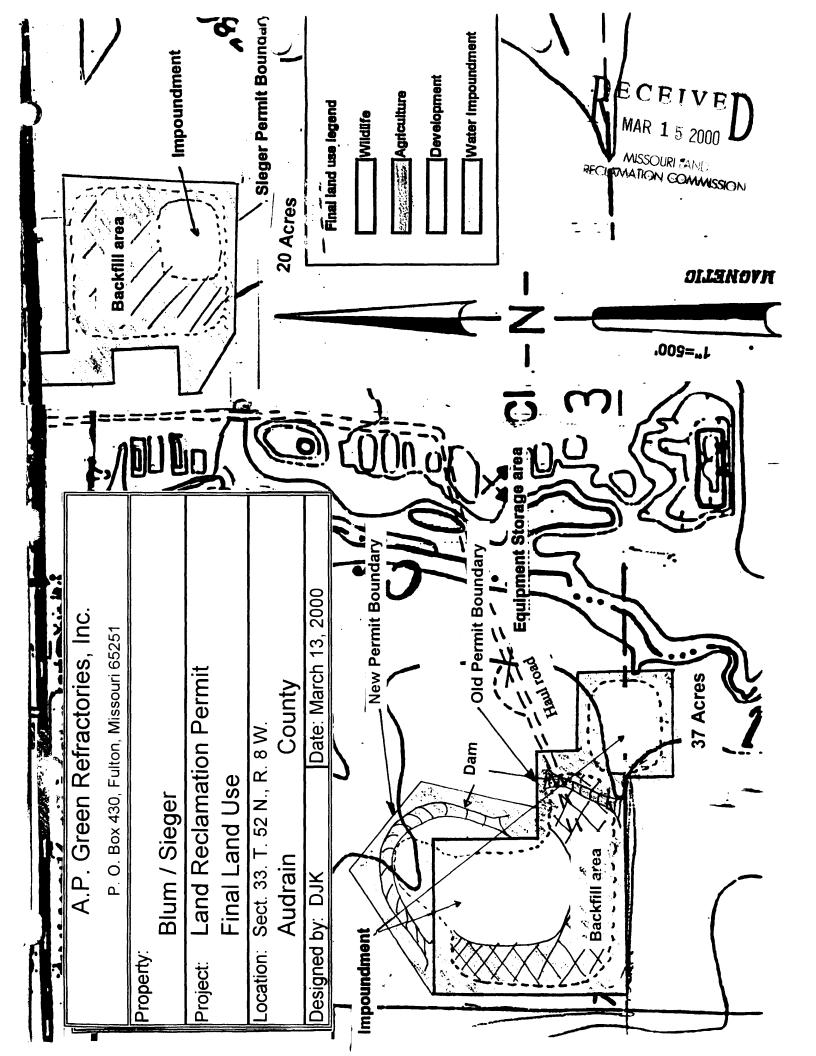
CENTRAL MISSOURI MARKET CENTER PHONE: (314) 581-3192

P.O. Box 340 - Highway 54 East

Mexico, Missouri 65265

MISSOUP! : AND





# MISSOURI DÉPARTMENT C NATURAL RESOURCES LAND RECLAMATION COMMISSION DECETVE LAND RECLAMATION COMMISSION **SITE INFORMATION FORM**

P.O. BOX 176 JEFFERSON CITY, MO 65102

SITE NAME OR NUMBER		PERMIT NUM	MBER	
Bueker	MISSOURI LAND RECLAMATION COMMISSION	118	}	
COMPANY NAME	A IAMANON SONO			
A. P. Green Refractories, Inc.				
COUNTY	1/4 SECTION		SECTION	
Gasconade	SW,SE,NE Sec. 25; SW,NW	Sec. 30	25 and 30	
TOWNSHIP	RANGE		ACRES	
43 N	5 and 6 W		37	
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)				
MINERAL COMMODITY		ESTIMATED TO	NS/YEAR (FOR GRAVEL SITES)	
Fire Clay				
		1		
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)				
A.P. Green Refractories, Inc.				
P. O. Box 430				
	T		T-12 0005	
CITY	STATE		ZIP CODE	
Fulton	MO		65251	
SOURCE OF RIGHT TO MINE (CHECK ONE):			DATE OF AGREEMENT	
MINERAL DEED	LEASE			
WARRANTY DEED	VERBAL AGREEM	ENT		
OTHER (DESCRIBE):				
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)				
A. P. Green Refractories, Inc.				
ADDRESS	<u> </u>			
P.O. Box 430				
CITY	STATE		ZIP CODE	
Fulton	Missouri		65251	
SOURCE OF RIGHT TO MINE (CHECK ONE):	•		DATE OF AGREEMENT	
MINERAL DEED	LEASE		04/28/77	
X WARRANTY DEED	VERBAL AGREEM	ENT		
OTHER (DESCRIBE):		···········		
NOTE: Each site must be sown on a map and be included in a public	c notice and an approved mine plai	n.		

# MISSOURI DEPARTMENT OF NATUF RESOURCES LAND RECLAMATION COMMISSION



### PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

TYPE OF PLAN (CHECK ONE):		MISSOURI LAND RECLAMATION COMMISSION
SHORT TERM, FOR ONE PERMIT YEAR		COSSIMA COMMISSION
X LONG TERM, FOR PERIOD THROUGH DATE:	<u>12/31/2050</u>	
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTIN	NG (BY APPLICANT OR PRIOR OPERATOR), INCLUDI	NG SOIL, VEGETATION, AND TOPOGRAPHY.
This site includes multiple individual pits. G 6 inches deep. Vegetation is either harwood specific location but generally are between	d timber or open with annual we	
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	MMISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
	2 INCHES	YES X NO
Prior to topsoil removal and immediately for control measures will be installed including basins in any combination depending on sit scrapers and/or bulldozers. The topsoil will surficial material from all areas to be distur	ollowing any clearing of vegetation straw bale dikes, silt fences, roo te specific conditions. Topsoil w Il be stored near the pit within the	ck check dams or sediment rill be removed using rubber-tired e permitted pit area. We will remove the
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE	GE AND PROTECTION	
Surficial material will be stored in gently sloto to control any erosion .	oping piles and will be seeded if	necessary with a cover crop

DESCRIBE METHO	DDS AND LOCATION	ON OF SPOIL PLACEMENT AND DISPOSAL
pushed	d back into th	in a previously mined out pit or stockpiled adjacent to the current pit where it is ne excavation following mining or used as fill in constructing a dam for the final spoil will be covered with water or topsoil. $ \begin{array}{c} RECEIVED \\ JUL 0 6 1999 \end{array} $ MISSOURI LAND RECLAMATION COMMISSION
C. ACID MA	TERIALS	
		MENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)
None		
140110		
PIT INFORM	MATION (GIV	/E ALL DIMENSIONS IN FEET)
		'ATION OF PIT, IF NOT CLEAR ON SITE MAPS
(See s	ite maps)	
YES	NO	
120	110	
	X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
	X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and
L		public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may
		start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet
		or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is
		greater, unless a variance is granted by the Commission.)
X		Will any excavation start at or within fifty feet (50') of any property line?
<u> </u>		(NOTE: If the answer is "yes", a safety barrier may be needed.)
MO 780-1327 (12-91)		Page 2

Page 2

B. SPÖIL

RECLAMATION PLAN - 10 CSR 40-10.0 (2)	(D)2.	N HH W	
A. REVEGETATION (Attach additional sheets	s, if needed)	3172 76 1999	D
REVEGETATION MIX #1	PURPOSE OR LAND USE	/ V W. L N / I M/ I / A I /	B. SEEDING OR PLANT TIME
Mixture #1	Wildlife	RECLAMATION COMMISS	ON Fall

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

10 10		
5 5 30 10		
PURPOSE	E OR LAND USE	B. SEEDING OR PLANTING TIME
	5 30 10	5 30 10 PURPOSE OR LAND USE

### DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchard Grass	10		
Korean Lespedeza	6		
Wheat or Oats	30		
Serecea Lespedeza (On Slopes)	20		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

### B. GRADING

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

MISSOURI LAND Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. Small impoundments or graded backfill areas will be left by the final phases of mining. The impoundment will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion. A more detailed reclamation plan for each individual pit is included on attachment A.

### C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

**GRADING** 

Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into dams to create impoundments. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"	
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	19
Agricultural (pasture, cropland, and horticultural)	0
Development (residential, industrial, and recreational)	0
Water impoundments (for wildlife, agricultural, or development)	18





Page 4 Secton B "Grading" - Describe Proposed Reclamation topography; including slopes

Pit #1A & Pit #1B. Both of these pits will be inundated with water. We have built a dam with the overburden and spoil from pit # 1B. The water backed up by dam will cover both of these pits. Spoil and overburden was also used to partially backfill the west side of pit #1B. Slopes are less than 5 % except on dam slopes.

Pit #2, is a prelaw pit mined prior to 1972. We plan to enlarge the pit and perform mining on three areas which will adjoin the present prelaw pit. The new disturbance will be both water impoundment and slopes.

Pit #3, was a prelaw pit that we went deeper in. We performed some grading and seeding on the Southwest slope of the impoundment. There is an office and parking lot belonging to Waste Management of North America, Inc. located North of the impoundment.

Pit #4, has been mined out and completely backfilled. The backfilled site was covered with topsoil and reseeded for wildlife. The site slopes less than 5%.

Pit #6, is currently being mined. The final reclamation will be an impoundment with a dam on the North side of the impoundment. Because the pit lays in a draw there will be slopes down to the water level that are reseeded with a wildlife seed mixture. Remaining slopes are anticipated to vary between 10 - 20%.

Pit #10, is mined out and reclaimed. There is a final impoundment and area reseed to grass. Slopes are less than 5% excluding the slopes of the dam located to the west of the impoundment.

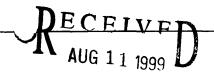
Pit #13A, is mined out and reclaimed. This site consist of a water impoundment with a small dam along the West and Nortwest sides of the impoundment. Slopes are less than 5%, excluding the dam slopes.

Pit #14, is mined out and reclaimed. The site consist of a water impoundment and a backfilled area that has been seeded to wildlife. The backfilled area (2 acres) has been approved and released by DNR. Water impoundment slopes are 3:1 or less.

Pit #15 and #15A, has been mined and reclaimed. The site was originally two separate pits but combined into one when mined. The final reclamation consist of and impoundment with a dam to the South and East sides of the impoundment. Seeded slopes are 10 - 20% in most locations.

Pit #16, is mined and reclaimed. The excavation was completely backfilled and reseeded with a wildlife seed mixture. Slopes are estimated to be approximately 15%.

Pit #19, is currently being mined. Final reclamation will consist of an impoundment and seeded slopes. Final slopes of 10 % or less are anticipated.

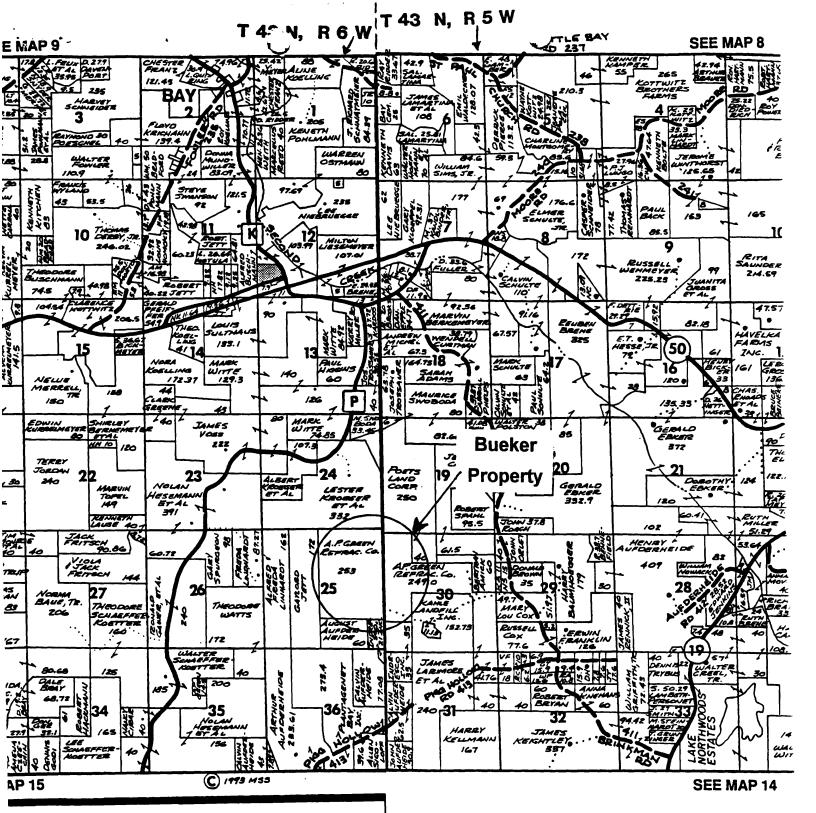


By my signature, I attest to the following:

MISSOURI LAND RECLAMATION COMMISSIC V

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICANT		TITLE	
Land 1 Her	David J. Keller	Mining Supervisor - Weste	rn District Mines
NOTARY PUBLIC EMBOSSER SEAL	STATE		COUNTY (OR CITY OF ST. LOUIS)
	Missouri		Callaway
	SUBSCRIBED AND SWORN BEFORE MI	E, THIS	USE RUBBER STAMP IN
	10th DAY OF Augus	31 33	CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE		EN S. LUTHER
	Karen Stuther	EXPIRES NO	TARY PUBLIC
	Rail o Hilli	7/18/2 <b>6</b> 0\$AT	E OF MISSOURI
	NOTARY PUBLIC NAME (TYPED OR PR		AWAY COUNTY
	Karen S. Luther	MY COMMIS	SION EXPIRES JULY 18, 2003
APPROVED BY (DIRECTOR'S REPRESENTATIVE)	DATE APPR	OVED PERMIT NUMBER	



# ETTER STORE INC. ERLING OIL CO.

G, MISSOURI 65062

'ARM SUPPLIES SINCE 1893

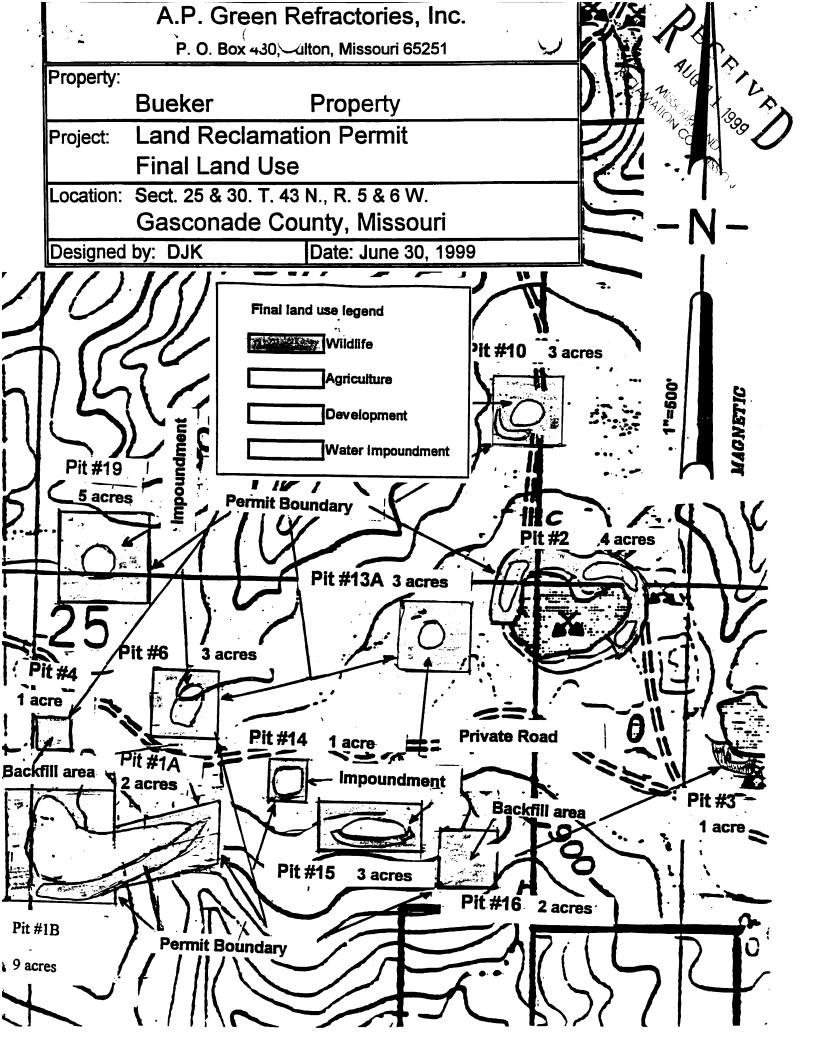
AMOCO

RECEIVED

MISSOURI LAND
RECLAMATION COMMISSION

3-6321 or 943-6393

**MAP** 11



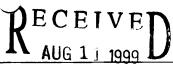
# MISSOURI DEPARTMENT WATURAL RESOURCES ED LAND RECLAMATION COMMISSION LULE 6 1999 **SITE INFORMATION FORM**

P.O. BOX 176 JEFFERSON CITY, MO 65102

SHE INFORMATION FORM	MISSOURI LAND		
SITE NAME OR NUMBER			
Chicago-Retort	nicago-Retort		
COMPANY NAME			
A. P. Green Refractories, Inc.			
COUNTY	1/4 SECTION	SECTION	
Montgomery	SE 1/4	6	
TOWNSHIP	RANGE	ACRES	
47 N	4 W	5	
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)			
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)	
Fire Clay			
	<del></del>		
NAME OF LANDOWNER (ATTAON A LOT IF MODE THAN ONE)			
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)			
A. P. Green Industries, Inc.			
ADDRESS			
P. O. Box 430			
CITY	STATE	ZIP CODE	
Fulton	МО	65251	
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT	
MINERAL DEED	LEASE		
WARRANTY DEED	VERBAL AGREE	MENT	
OTHER (DESCRIBE):	<u>—</u>		
OTHER (DESCRIBE):			
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)			
A. P. Green Refractories, Inc.			
ADDRESS			
P.O. Box 430	Lozaze	7/0.005	
CITY	STATE	ZIP CODE	
Fulton	Missouri	65251	
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT	
MINERAL DEED	LEASE	05/30/73	
	<u> </u>		
X WARRANTY DEED	VERBAL AGREE	MENT	
OTHER (DESCRIBE):			
NOTE: Each site must be sown on a map and be include	d in a public notice and an approved mine pl	an.	

# \*MISSOURI DEPARTMENT OF NATULE RESOURCES LAND RECLAMATION COMMISSION

### PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES



TYPE OF PLAN (CHECK ONE):		AAICCOURLAND		
SHORT TERM, FOR ONE PERMIT YEAR		MISSOURI LAND RECLAMATION GOMMISSION		
X LONG TERM, FOR PERIOD THROUGH DATE:	12/31/2050			
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTIN	G (BY APPLICANT OR PRIOR OPERATOR), INCLUDING	SOIL, VEGETATION, AND TOPOGRAPHY.		
Tis site is covered with decidious hardwood 5%. The slopes on the East side of the perr		vary with most greater than		
ODEDATION DI ANI. 40 COD 40 40 COCCOVENA				
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.				
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	IMISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?		
	2 INCHES	YES X NO		
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOV	AL			
Prior to topsoil removal and immediately following any clearing of vegetation, appropriate sediment control measures will be installed including straw bale dikes, silt fences, rock check dams or sediment basins in any combination depending on site specific conditions. Topsoil will be removed using rubber-tired scrapers and/or bulldozers. The topsoil will be stored near the pit within the permitted pit area. We will remove the surficial material from all areas to be disturbed before mining or stripping begins.				
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAG	GE AND PROTECTION			
Surficial material will be stored in gently slo to control any erosion .	pping piles and will be seeded if ne	cessary with a cover crop		

B. SPOIL	
DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL	
We are currently mining this site. Spoil is placed in a previous mining phase and final impoundment.	will be covered by the
	RECEIVED
	MISSOURI LAND RECLAMATION COMMISSION
C. ACID MATERIALS	
DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "	NONE" BELOW)
None	
1	
PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET)	-
DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS	
(See site maps)	
VEO. NO.	

YES	NO X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
	X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)
	X	Will any excavation start at or within fifty feet (50') of any property line?  (NOTE: If the answer is "yes", a safety barrier may be needed.)

RECLAMATION PLAN - 10 CSR 40-10.04\_\_\_\_)(D)2.

DECEIVED JUL 46 1997

A. REVEGETATION (Attach additional sheets,	if needed)		
REVEGETATION MIX #1	PURPOSE OR LAND USE	MISSOURI LAND	B. SEEDING OR PLANT TIME
Mixture #1	Wildlife	AMATION COMMISSION	Fall

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPE	CIES STEMS/ACRE
Orchardgrass Timothy Red Clover Korean Lespediza Wheat or Oats Serecea Lespedeza (on slopes)	10 10 5 5 30 10	•	
VEGETATION MIX #2	PURPOSE	OR LAND USE	B. SEEDING OR PLANTING TIME
Mixture #2	Wildlife		Spring

### DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchard Grass Korean Lespedeza Wheat or Oats Serecea Lespedeza (On Slopes)	10 6 30 20		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

### B. GRADING

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

RECEIVED

Areas backfilled with spoil from the site will be graded to match the surrounding to prography and covered with topsoil. A small impoundment will be left by the final phase of mining. The impoundment will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion. In no case will the reclaimed topography exceed a 3:1 slope.

### C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

GRADING

Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into dams to create impoundments. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

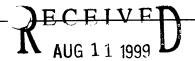
REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"			
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:		
Wildlife (forest or other habitat with livestock excluded)	3		
Agricultural (pasture, cropland, and horticultural)	0		
Development (residential, industrial, and recreational)	0		
Water impoundments (for wildlife, agricultural, or development)	2		



By my signature, I attest to the following:

MISSOURI LAND
RECLAMATION COMMISSION

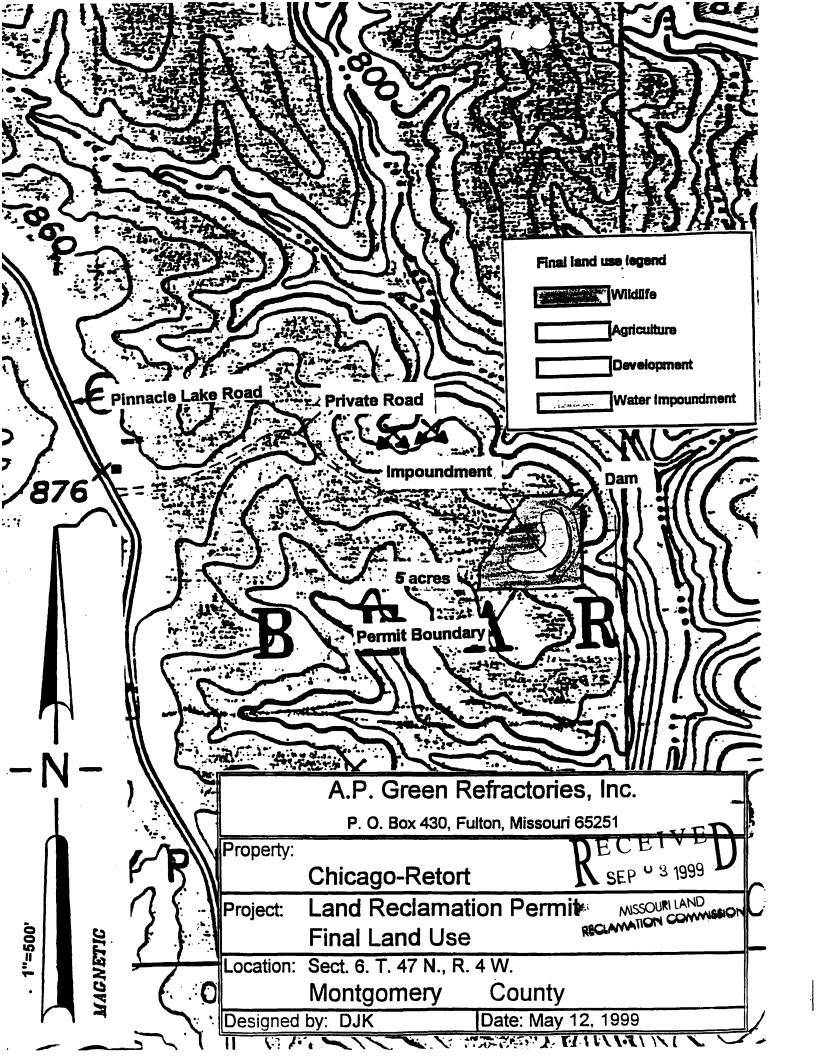
- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICANT		TITLE	
Mul 1 Mh	David J. Keller	Mining Supervisor - Weste	rn District Mines
NOTARY PUBLIC EMBOSSER SEAL	STATE		COUNTY (OR CITY OF ST. LOUIS)
	Missouri		Callaway
	SUBSCRIBED AND SWORN BEFORE M	E, THIS	USE RUBBER STAMP IN
	10th DAY OF Augu	st 19 99 <sub>KAR</sub>	CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE	MY COMMISSION NOT	ARY PUBLIC
	Karen & Luthe		OF MISSOURI WAY COUNTY
			ON EXPIRES JULY 18, 2003
APPROVED BY (DIRECTOR'S REPRESENTATIVE)	DATE APPR	OVED PERMIT NUMBER	

3500 PARE SHARTER SOUTHWEST BEAR EREEK T.4 ~48 N.- R.4 W. FLORIS 63035 Karneth V Sara Waggener Richa Rogi 40 4 Uewe// Dyke Joe Randa// R. Earl M. Ockerhaus Rodgers Ε Rolla. Hank 145 KŽ Alan J. Bufka Ruby Pool Barnice A Kies P 220 80 PRICE'S BRANCH Schwartz ξĝ Samuel Jr. 160 Ralph 30 80 eral 80 Tillikas. 10 Rose Ninian D. Edwards, etal 80 105.85 725 Glenn J. Rucker Clifford M. Stock 80 David Shelton 160 Lloyd D Ellis Niet. 144.20 w.c. L Minnie Hensley Franklin A. Nistendirk ·28 From 0/40 Otto C. Cha Charles Bishop وناه 30 Porter W. Jublett 40 Albea N S Chenning **Chicago-Retort** mastery 140. Steinert 246 Incy Carr Marion 36 **Property** Caryl G Finke HIGH Za: E A.P.Gree Floating Acres Ranch 80 142.26 Fliehman. 10 Floating Acres Ranch Willia JONESBURG Diogs 80 654.16 @ 1984 Rockford Map Publs, Inc. nery County, Mô. WARREN COUNTY **L** SEP ∪ 3 1999

MISSOURI LAND

6



# MISSOURI DEPARTMENT ( JATURAL RESOURCESV F D LAND RECLAMATION COMMISSION | JUL 4 6 1999 SITE INFORMATION FORM

MO 780-1036 (12-91)

P.O. BOX 176 JEFFERSON CITY, MO 65102

SITE NAME OR NUMBER	MISSOURI LAND	PERMIT NUM	BER
Danuser Pit #1	RECLAMATION COMMISSION 118		
COMPANY NAME			,
A. P. Green Refractories, Inc.			
COUNTY	1/4 SECTION		SECTION
Maries	NE 1/4		21
TOWNSHIP	RANGE		ACRES
41 N	7 W		4
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)			
MINERAL COMMODITY		ESTIMATED TONS	S/YEAR (FOR GRAVEL SITES)
Fire Clay			
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)			
Mr. and Mrs. Lee Maples			
ADDRESS			4
P. O. Box 519			
CITY	STATE		ZIP CODE
Belle	МО		65013
SOURCE OF RIGHT TO MINE (CHECK ONE):			DATE OF AGREEMENT
- MINERAL DEED			
MINERAL DEED	LEASE	L	
WARRANTY DEED	VERBAL AGREEM	ENI	
OTHER (DESCRIBE):			
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)			
A. P. Green Refractories, Inc.			
ADDRESS			
P.O. Box 430			
CITY	STATE		ZIP CODE
Fulton	Missouri		65251
SOURCE OF RIGHT TO MINE (CHECK ONE):			DATE OF AGREEMENT
X MINERAL DEED	LEASE		04/06/48
WARRANTY DEED	VERBAL AGREEN	IENT	
OTHER (DESCRIBE):			
NOTE: Each site must be sown on a map and be included in a publi	c notice and an approved mine pla	n.	

# MISSOURI DEPARTMENT OF NATU RESOURCES LAND RECLAMATION COMMISSION

# PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

RECEIVED	
AUG 1 1 1999	

TYPE OF PLAN (CHECK ONE):	,	MISSOURI LAND
SHORT TERM, FOR ONE PERMIT YEAR		RECLAMATION COMMISSO
X LONG TERM, FOR PERIOD THROUGH DATE:	12/31/2050	
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	G (BY APPLICANT OR PRIOR OPERATOR), INCLUDING S	SOIL, VEGETATION, AND TOPOGRAPHY.
Prior to permitting this site was vegetated to which contains an old clay mine which has	- · · · · · · · · · · · · · · · · · · ·	
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	MISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
	! INCHES	YES X NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVE	AL	
Prior to topsoil removal and immediately fo control measures will be installed including basins in any combination depending on sit scrapers and/or bulldozers. The topsoil will surficial material from all areas to be disturb	straw bale dikes, silt fences, rock of e specific conditions. Topsoil will be stored near the pit within the p	check dams or sediment be removed using rubber-tired ermitted pit area. We will remove the
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAG	GE AND PROTECTION	
Surficial material will be stored in gently slo to control any erosion .	ping piles and will be seeded if ne	cessary with a cover crop

### **B. GRADING**

### DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. A small impoundment will be left by the final phase of mining. The impoundment will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion. In no case will the reclaimed topography exceed a 3:1 slope.

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SEP 4 2003

MISSOURI LAND
RECLAMATION COMMISSION

# C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

### **GRADING**

Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into dams to create impoundments. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

### REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

### REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"	
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	0
Agricultural (pasture, cropland, and horticultural)	4
Development (residential, industrial, and recreational)	0
Water impoundments (for wildlife, agricultural, or development)	0

MO 780-1327 (12-91)

RECEIVAUG 11 1999 -

By my signature, I attest to the following:

MISSOURI LAND

- RECIAMATION COMPANY.

  1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICANT	TIT	rle .	
· Church of Jale	_ David J. Keller	Mining Supervisor - Weste	rn District Mines
NOTARY RUBLIC EMBOSSER SEAL	STATE	COUNTY (OR CITY OF ST. LOUIS)	
	Missouri		Callaway
	SUBSCRIBED AND SWORN BEFORE ME, TI	HIS	USE RUBBER STAMP IN
	10th DAY OF August	JJ	CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE		EN S. LUTHER
	Karen Shither		TARY PUBLIC
	Halles & Hitches		E OF MISSOURI
	NOTARY PUBLIC NAME (TYPED OR PRINTE	ED) CALL	AWAY COUNTY
	Karen S. Luther	MY COMMISS	ION EXPIRES JULY 18, 2003
APPROVED BY (DIRECTOR'S REPRESENTATIVE)	DATE APPROVE	D PERMIT NUMBER	

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Farms - Homes - Commercial - Acreage

# WELCH REAL ESTATE



Hwy. 68 North St. James, Mo.

JOHN and DEE WELCH Realtors

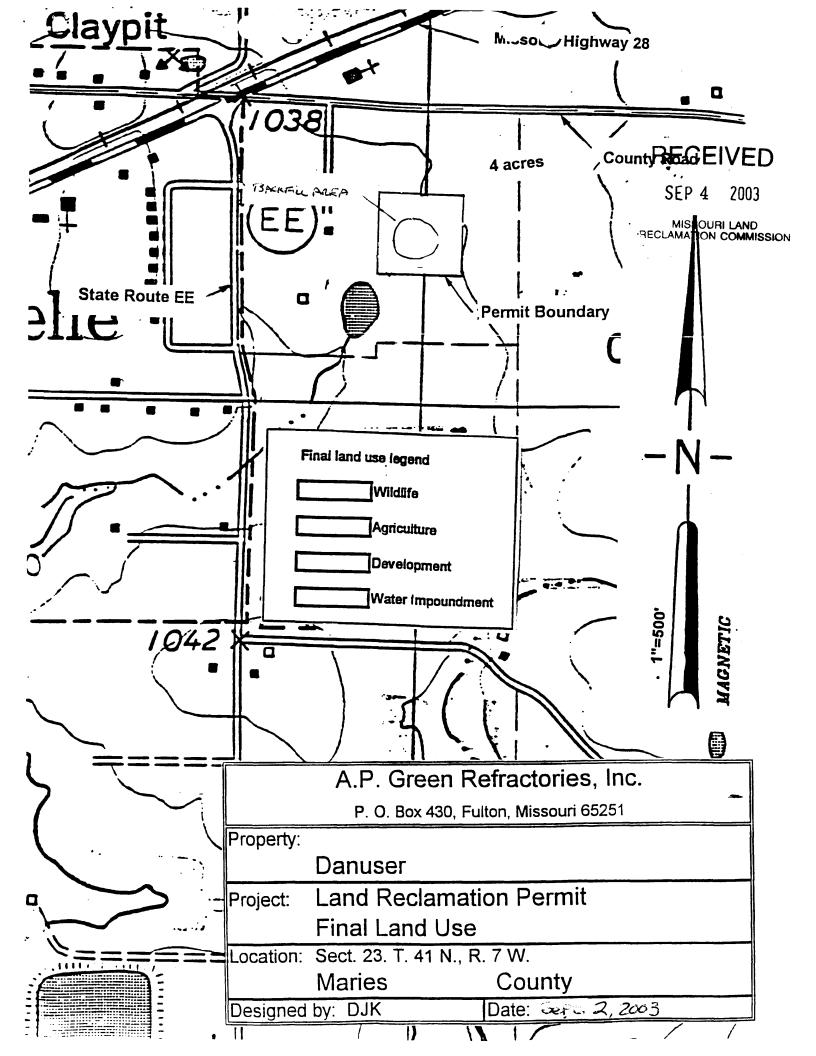


Office (314) 265 - 3831 Home (314) 699 - 4229

erslinkman, 326 RANGE Danuser Pit #1 41 TOWNSHIP OSAGE COUNTY VERNON

ALL RIGHTS RESERVED

SEE PAGE 1.



# MISSOURI DEPARTMENT C JATURAL RESOURCES LAND RECLAMATION COMMISSION RECEIVET

MO 780-1036 (12-91)

P.O. BOX 176 JEFFERSON CITY, MO 65102

SITE NAME OR NUMBER	999 1	PERMIT NUMBER
Farnberg-Larimore RECIAN	MISSOURI LAND MATION COMMISSION	118
COMPANY NAME	MIN 48 CUMMAISSI()N	
A. P. Green Refractories, Inc.		
COUNTY	1/4 SECTION	SECTION
Gasconade	SW 1/4 of 30, NW 1/	4 of 31 30 and 31
TOWNSHIP	RANGE	ACRES
43 N	5 W	6
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)
Fire Clay		
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)		
Waste Management of North America, Inc. (se	ee attached)	
ADDRESS		
Two Westbrook Corporate Center, Suite 1000	. P. O. Box 7070	
CITY	STATE	ZIP CODE
Westchester	IL	60154
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
MINERAL DEED		
MINERAL DEED	LEASE	
WARRANTY DEED	VERBAL AGREE	WENT
OTHER (DESCRIBE):	· · · · · · · · · · · · · · · · · · ·	
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)		
A. P. Green Refractories, Inc. (see attached)		
ADDRESS		
P. O. Box 430		
CITY	STATE	ZIP CODE
Fulton	МО	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
X MINERAL DEED	LEASE	03/21/89
WARRANTY DEED	VERBAL AGREE	MENT
OTHER (DESCRIBE):		
NOTE: Each site must be sown on a map and be included in a public	notice and an approved mine pl	an.



MISSOURI LAND RECLAMATION COMMISSION

# Additional Landowner on Farnberg-Larimore Property Located in the NW1/4 of Sect 31. T. 43 N., R. 5 W.

# Landowner:

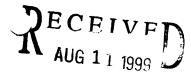
James and Jerry Lairmore 112 East Lincoln Ave. Owensville, MO 65066

Right to Mine: Mineral Lease Dated: July 15, 1993

Lease Holder: Jones and Turner, Inc.

P. O. Box 1127 Linn, MO 65051

# MISSOURI DEPARTMENT OF NATUE RESOURCES LAND RECLAMATION COMMISSION



# PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

TYPE OF PLAN (CHECK ONE):		MISSOURI LAND RECLAMATION CONVESSION	
SHORT TERM, FOR ONE PERMIT YEAR		ANNA CONVISCION	
X LONG TERM, FOR PERIOD THROUGH DATE:	12/31/2050		
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	(BY APPLICANT OR PRIOR OPERATOR), INCLUDING	SOIL, VEGETATION, AND TOPOGRAPHY.	
Prior to permitting, site was a covered with cohert rock and sandstone. Slopes were general		ay based and topsoil contained	
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.			
	······································		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	MISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?	
Less that	n 12 INCHES	YES X NO	
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVA	AL		
Bulldozers and/or rubber tired scrapers were used to remove and store surficial material and soil.			
Bulldozers and/or rubber tired scrapers were	e used to remove and store surfic	al material and soil.	
Bulldozers and/or rubber tired scrapers were	e used to remove and store surfic	al material and soil.	
Bulldozers and/or rubber tired scrapers were	e used to remove and store surfic	al material and soil.	
Bulldozers and/or rubber tired scrapers were	e used to remove and store surfic	al material and soil.	
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Bulldozers and/or rubber tired scrapers were	e used to remove and store surfic	al material and soil.	
Bulldozers and/or rubber tired scrapers were	e used to remove and store surfic	al material and soil.	
		al material and soil.	
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE	SE AND PROTECTION		
	SE AND PROTECTION		
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE	SE AND PROTECTION		
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE	SE AND PROTECTION		
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE	SE AND PROTECTION		
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE	SE AND PROTECTION		

R	SPC	Ш

MO 780-1327 (12-91)

DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

Spoil was placed in stockpiles. Spoil will be either spread to a gently rolling topography, placed in the excavation or used as fill material to construct a dam to the west of the pit.

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MISSOURI LAND RECLAMATION COMMISSION

Page 2

	WEST HARAITEN A SON ABANDADIA
C. ACID MATER	IALS
ESCRIBE METHODS AI	ND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)
None	
PIT INFORMATIO	ON (GIVE ALL DIMENSIONS IN FEET)
DESCRIBE LOCATION A	ND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS
(See site m	aps)
YES N	0
	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and
	public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may
	start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is
	greater, unless a variance is granted by the Commission.)
	Will any excavation start at or within fifty feet (50') of any property line?
	(NOTE: If the answer is "yes", a safety barrier may be needed.)

RECLAMATION PLAN - 10 CSR 40-10.02	ر)(D)2.	$\mathcal{O}$		
A. REVEGETATION (Attach additional sheets, if needed)				
REVEGETATION MIX #1	PURPOSE OR LAND USE	B. SEEDING OR PLANT TIME		
Mixture #1	Wildlife	Spring or Fall		

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Conventional agricultrual equipment was used to prepare the seed bed. Fertilizer and seed were mixed together and broadcast on the seeding areas. A harrow or similar farm implement will be used to work the mixture into the seed bed.

MISSOURI LAND RECLAMATION COMMISSION

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchardgrass Timothy Red Clover Korean Lespediza Wheat or Oats Serecea Lespedeza (on slopes)	10 10 5 5 30 10		
VEGETATION MIX #2	PURPOSE	OR LAND USE E	. SEEDING OR PLANTING TIME
Mixture #2	Wildlife		Spring

# DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchard Grass Korean Lespedeza Wheat or Oats Serecea Lespedeza (On Slopes)	10 6 30 20		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

# **B. GRADING**

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

 $\frac{R_{CEIVE}}{JUL_{6}_{6}}$ 

Reclaimed topography will be gently rolling to rolling with a slope of 20% or lesself land the property. Any timber removed during the mining process will be neatly piled for wildlife habitat.

### C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

GRADING

Grading will be preformed after the completion of all mining operations and before the fall planting season.

REPLACEMENT OF TOPSOIL

Immediately following grading, weather permitting.

### REVEGETATION

Primary seeding performed August 15 to September 15, weather permitting. Overseeding will be performed January 1 to March 31. Limited spring seed ing will be made if needed.

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) Less than	12"
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	3
Agricultural (pasture, cropland, and horticultural)	0
Development (residential, industrial, and recreational)	0
Water impoundments (for wildlife, agricultural, or development)	3

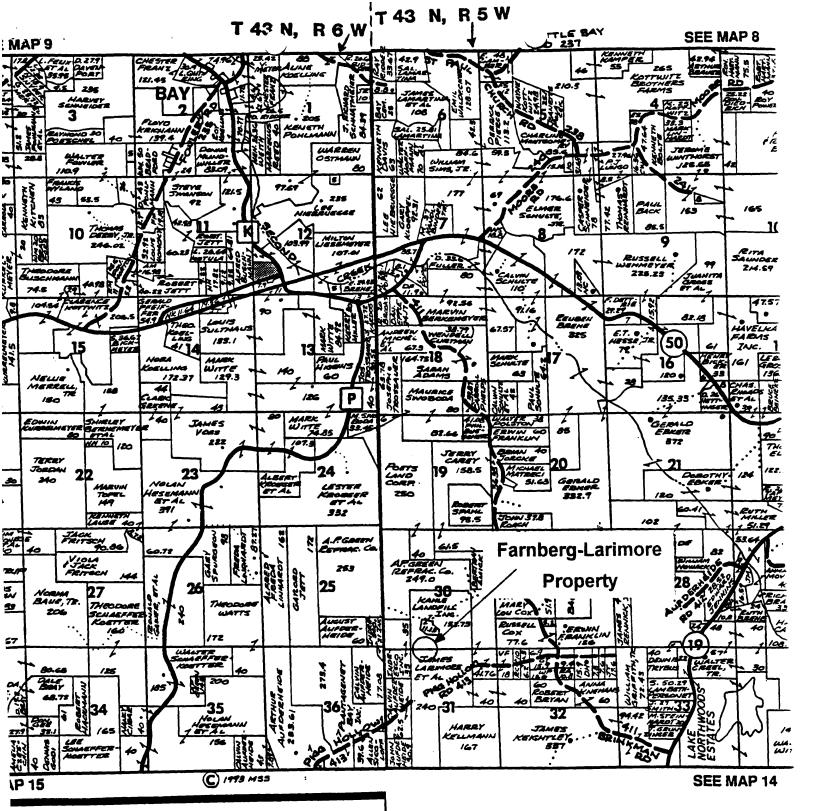


By my signature, I attest to the following:

MISSOURLIAN	
RECLAMATION COVAL TONI	

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICANT		TITLE	
Wund 19Lel	David J. Keller	Mining Supervisor - Weste	ern District Mines
NOTARY PUBLIC EMBOSSER SEAL	STATE		COUNTY (OR CITY OF ST. LOUIS)
	Missouri		Callaway
	SUBSCRIBED AND SWORN BEFORE M	E, THIS	USE RUBBER STAMP IN
	10th DAY OF Augu	st <sup>19</sup> 99	CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE	MY COMMISSION	TARY PUBLIC
	Karen S Luxin	) EXPINES	E OF MISSOURI AWAY COUNTY
	NOTARY PUBLIC NAME (TYPED OR PR	MY COMMI	SION EXPIRES JULY 18, 2003
APPROVED BY (DIRECTOR'S REPRESENTATIVE)	DATE APPR	ROVED PERMIT NUMBER	· · · · · · · · · · · · · · · · · · ·



# TTER STORE INC. ERLING OIL CO.

G, MISSOURI 65062

ARM SUPPLIES SINCE 1893

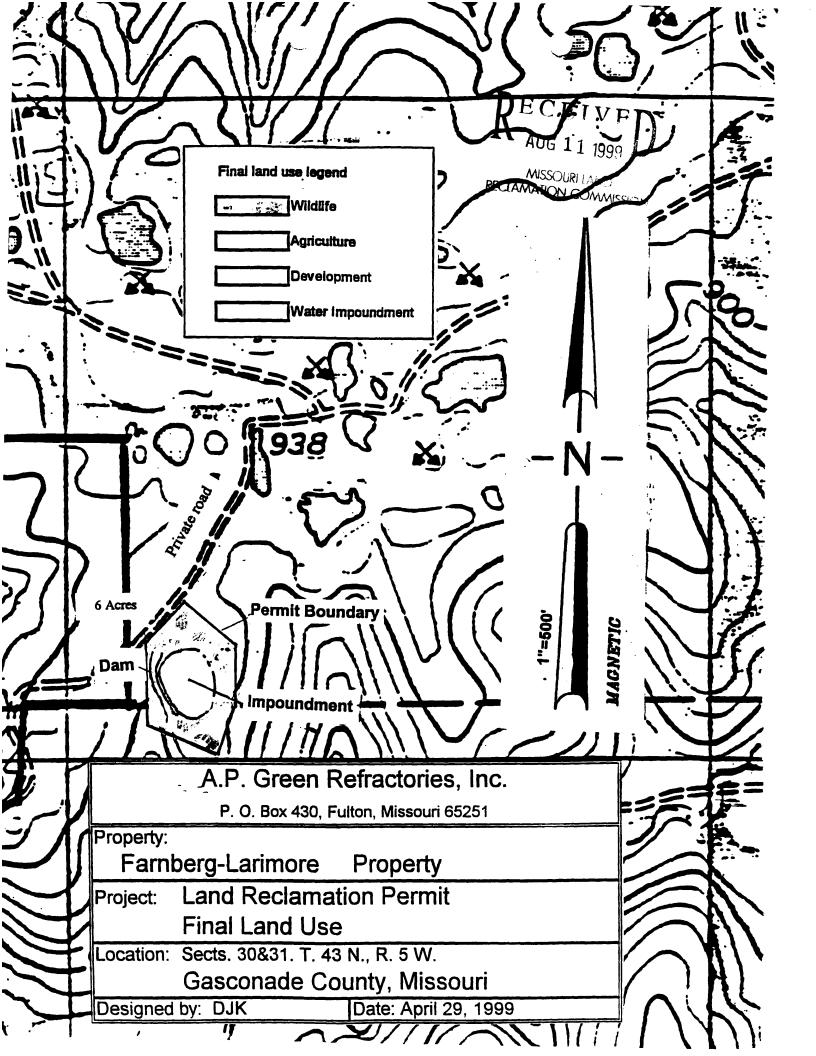
1-6321 or 943-6393



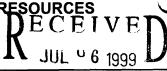
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MISSOURI LAND
RECLAMATION COMMISSION

MAP 11



# MISSOURI DEPARTMENT CONATURAL RESOURCES DECEMBER AMATION COMMISSION DECEMBER 1 V E LAND RECLAMATION COMMISSION SITE INFORMATION FORM

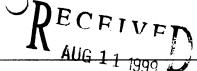


P.O. BOX 176 JEFFERSON CITY, MO 65102

SITE NAME OR NUMBER		PERMIT NUMBER		
Hance #1 & #2	MISSOURI LAND RECLAMATION GOMMISSION	118		
COMPANY NAME				
A. P. Green Refractories, Inc.				
COUNTY	1/4 SECTION	SECTION		
Phelps	NW & NE 1/4	8		
TOWNSHIP	RANGE	ACRES		
38 N	7 W	5		
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)				
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)		
Fire Clay				
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)				
Charles E. Herrman, Jr.				
ADDRESS				
117 West Eighth Street				
CITY	STATE	ZIP CODE		
Rolla	МО	65401		
SOURCE OF RIGHT TO MINE (CHECK ONE):	<u></u>	DATE OF AGREEMENT		
MINERAL DEED	LEASE			
WARRANTY DEED VERBAL AGREEMENT				
OTHER (DESCRIBE):				
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)				
A. P. Green Refractories, Inc.				
ADDRESS	<del></del>			
P.O. Box 430				
CITY	STATE	ZIP CODE		
Fulton	Missouri	65251		
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT		
X MINERAL DEED	LEASE	05/30/73		
WARRANTY DEED	VERBAL AGREEM	ENT		
OTHER (DESCRIBE):				
NOTE: Each site must be sown on a map and be included in a public	c notice and an approved mine pla	n.		

# MISSOURI DEPARTMENT OF NATUR RESOURCES LAND RECLAMATION COMMISSION

# PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES



TYPE OF PLAN (CHECK ONE):		1 1990
SHORT TERM, FOR ONE PERMIT YEAR		RECLAMATION COMMISSION
X LONG TERM, FOR PERIOD THROUGH DATE:	<u>12/10/2010</u>	COMMISSION
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	G (BY APPLICANT OR PRIOR OPERATOR), INCLUDING S	COIL, VEGETATION, AND TOPOGRAPHY
This site prior to mining was open pasture we with a fescue/clover cover.	vith very little rocky residual topsoi	. Slopes were gentle to moderate
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	MISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
	! INCHES	YES X NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVA	AL	
Prior to topsoil removal and immediately fol control measures will be installed including basins in any combination depending on site scrapers and/or bulldozers. The topsoil will surficial material from all areas to be disturb	straw bale dikes, silt fences, rock of e specific conditions. Topsoil will be be stored near the pit within the po	check dams or sediment be removed using rubber-tired ermitted pit area. We will remove the
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE	E AND PROTECTION	
Surficial material will be stored in gently slo to control any erosion .	ping piles and will be seeded if ned	cessary with a cover crop

B. SPOIL	
DESCRIBE METHODS	AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL
Spoil was on the site pit.	moved using bulldozers and rubber tired scrapers. The spoil was either used to construct the two dams or backfilled into the excavation. A large pre-law spoil pile was used to backfill the west side of the east
	DECEIVED
	RECEIVED JUL 4 6 1999
	MISSOURI LAND RECLAMATION COMMISSION
C. ACID MATER	
DESCRIBE METHODS	AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)
None	
	1
PIT INFORMATI	ON (GIVE ALL DIMENSIONS IN FEET)
	AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS
(See site	mane)
(See site i	naps)
YES I	NO
	X Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
<u> </u>	VVIII any excavation be at or within inty lest (50 ) or the right-or-way or any public road:
	· · · · · · · · · · · · · · · · · · ·
	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and
	public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet
	or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is
	greater, unless a variance is granted by the Commission.)
	X Will any excavation start at or within fifty feet (50') of any property line?
	(NOTE: If the answer is "yes", a safety barrier may be needed.)
MO 780-1327 (12-91)	Page 2

• .-

# A. REVEGETATION (Attach additional sheets, if needed) REVEGETATION MIX #1 PURPOSE OR LAND USE Mixture #1 Pasture B. SEEDING OR PLANT TIME Fall

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

MISSOURI LAND RECLAMATION COMMISSION

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Tall Fescue Red Clover Wheat or Oats	25 5 30		

VEGETATION MIX #2	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
Mixture #2	Pasture	Spring

# DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchard Grass Korean Lespedeza Wheat or Oats Serecea Lespedeza (On Slopes)	10 6 30 20		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

R	GR	IN	C

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. Two impoundment will be left by the final phase of mining. The impoundments will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion. In no case will the reclaimed topography exceed a 3:1 slope.

MISSOURI LAND RECLAMATION COMMISSION

# C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

**GRADING** 

Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into dams to create impoundments. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

### REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.

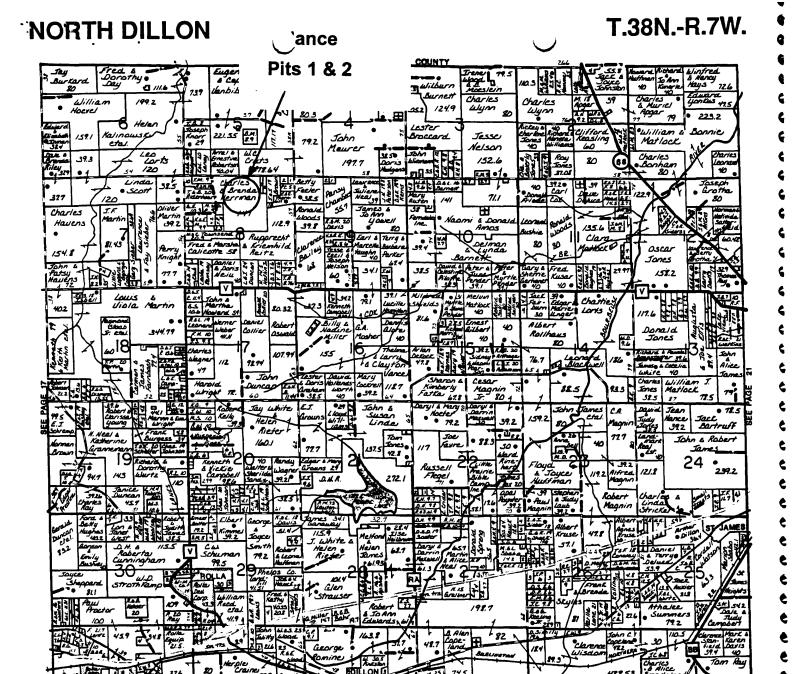
AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"	
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	0
Agricultural (pasture, cropland, and horticultural)	3
Development (residential, industrial, and recreational)	0
Water impoundments (for wildlife, agricultural, or development)	2

# By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

RECEIVED AUG 11 1999 AUG 11 1999 RECLAMATION COMMISS

SIGNATURE OF APPLICANT		TITLE			
Wants /ha	David J. Keller		Mining Supe	ervisor - Weste	ern District Mines
NOTARY PUBLIC, PMBOSSER SEAL	STATE		, , ,		COUNTY (OR CITY OF ST. LOUIS)
	Missouri				Callaway
	SUBSCRIBED AND SWORN BE	FORE ME, THIS			USE RUBBER STAMP IN
	10th DAY OF August			99 KAD	CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE  **EXECUTION S LUTLES		EXPIRES NO		EN S. EUTHER
					TARY PUBLIC
	1 yaun 2 70	TRI		7/18/2005	E OF MISSOURI
	NOTARY PUBLIC NAME (TYPE	D OR PRINTED)		CALL	AWAY COUNTY
	Karen S. Luther	·		MY COMMISS	ION EXPIRES JULY 18, 2003
APPROVED BY (DIRECTOR'S REPRESENTATIVE)	DA	TE APPROVED	PERI	MIT NUMBER	



MISSOURI LAND

JUL 6 1999

, 35 Bahr & Sons

Furniture Co. Inc. 154

Lerwick

52.1

# **BARNES TRUCK PLAZA**

1-44 East & V Highway Rolla, Missouri 65401

- \* Mini Mart
- \* Restaurant
- \* Mens & Womens
- \* Diesel Fuel
- Showers
- \* Texaco

MERL BARNES Phone: (314) 341 - 3565



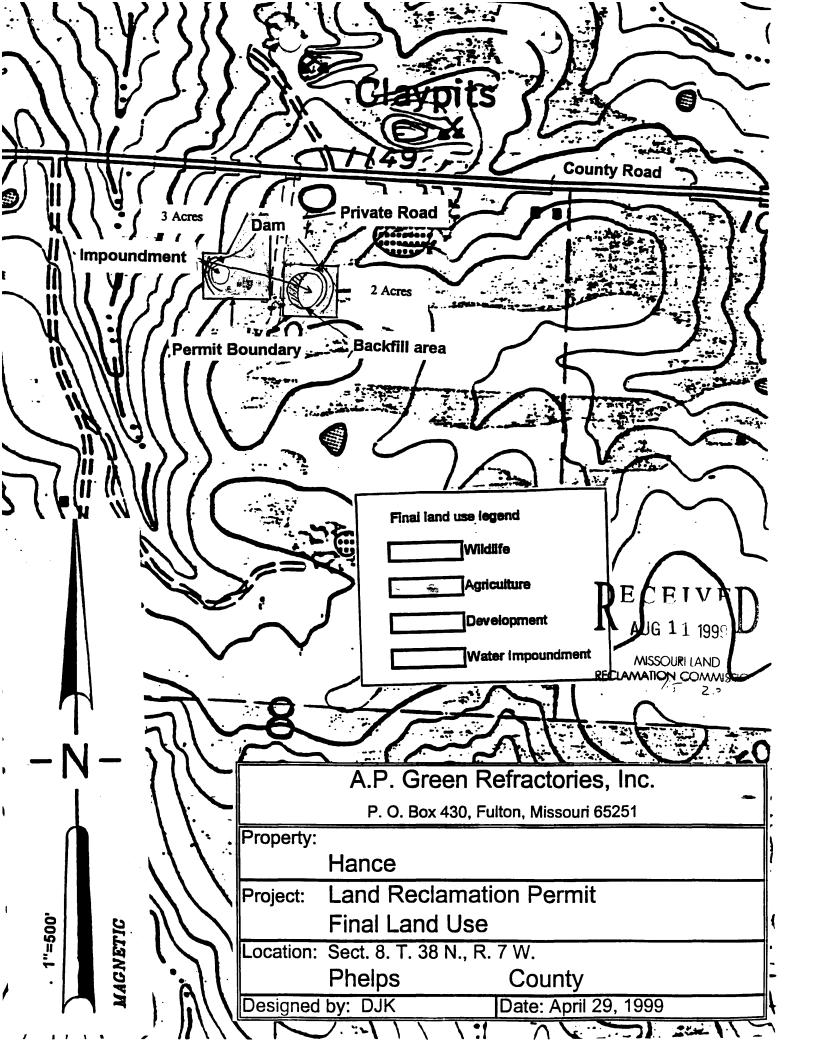
HAROLD C. MACE

612 WEST 11TH STREET P.O. BOX 765

ROLLA, MISSOURI 65401 PHONE: OFF. 364 - 3528

RES. 364- 1959





# MISSOURI DEPARTMEN OF NATURAL RESOURCES RECUIVED

# LAND RECLAMATION COMMISSION SITE INFORMATION FORM

4,

JAN 2 4 200 J.O. BOX 176 JEFFERSON CITY, MO 65102

SITE NAME OR NUMBER	DECTY WALL	PERMIT NUMBER
Harrison, S. S. Property		<b>118</b>
COMPANY NAME		
A. P. Green Refractories, Inc.		
COUNTY	1/4 SECTION	SECTION
Callaway	SW 1/4	1
TOWNSHIP	RANGE	ACRES
48 N	9 W	25
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)
Fire Clay		
NAME OF ANDOMASE (ATTACK A LICE TO DE TIME OF THE COLUMN O		
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)		
A. P. Green Industries, Inc.		
ADDRESS		
P. O. Box 430	T	T
CITY	STATE	ZIP CODE
Fulton	МО	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
MINERAL DEED	LEASE	
WARRANTY DEED	VERBAL AGREEME	ENT
OTHER (DESCRIBE):		
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)		
A. P. Green Refractories, Inc.		
ADDRESS		
P.O. Box 430		
CITY	STATE	ZIP CODE
Fulton	Missouri	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):	MISSOUT	DATE OF AGREEMENT
, , ,		
MINERAL DEED	LEASE	03/08/61
X WARRANTY DEED	VERBAL AGREEME	ENT
OTHER (DESCRIBE):		
NOTE: Each site must be sown on a map and be included in a public	notice and an approved mine plan	
MO 780-1036 (12-91)	are are a series plant	

# MISSOURI DEPARTMENT OF NA AL RESOURCES LAND RECLAMATION COMMISSION



# PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

TYPE OF PLAN (CHECK ONE):		JAN	V 2 4 2001
SHORT TERM, FOR ONE PERMIT YEAR			SOURI LAND
X LONG TERM, FOR PERIOD THROUGH DATE:	12/31/2050		SCION
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	G (BY APPLICANT OR PRIOR OPER	ATOR), INCLUDING SOIL, VEGETATION, AND	O TOPOGRAPHY.
This site prior to mining was moderately to forest and grassy pasture. Topsoil in the ar			
UPEKATION PLAN - 10 CSK 40-10.020(2)(D)1.			
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	MISSION PERMITTING	IS TOPSOIL TO BE	SOLD OR DISCARDED OFFSITE?
	2 INCHES	YES	S X NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVA	AL	- <u> </u>	
Prior to topsoil removal and immediately fo control measures will be installed including basins in any combination depending on sit scrapers and/or bulldozers. The topsoil will surficial material from all areas to be disturb	straw bale dikes, silt f e specific conditions. be stored near the pi	ences, rock check dams or Topsoil will be removed us t within the permitted pit are	sediment ing rubber-tired
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAG	GE AND PROTECTION		
Surficial material will be stored in gently slo to control any erosion .	ping piles and will be	seeded if necessary with a	cover crop

SCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL	
Spoil will be moved using rubber tired scrapers and bull dozers and for slopes or placed in dams to create impoundments.	d placed in gently sloping piles, used as backfill
	RECEIVED
	JAN 2 4 2001
	PECLA MISSOURI LAND
C. ACID MATERIALS	S.C. TH
ESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIP	PATED, WRITE "NONE" BELOW)
None	
None	
DIT INICODMATION (CILVE ALL DIMENSIONS IN EEET)	
PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET) SESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS	
ESCRIBE LOCATION AND ORIENTATION OF PIT. IF NOT CLEAR ON SITE MAPS	 
ESCRIBE LOCATION AND ORIENTATION OF PIT. IF NOT CLEAR ON SITE MAPS	
ESCRIBE LOCATION AND ORIENTATION OF PIT. IF NOT CLEAR ON SITE MAPS	
ESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS	
ESCRIBE LOCATION AND ORIENTATION OF PIT. IF NOT CLEAR ON SITE MAPS	
ESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS	
ESCRIBE LOCATION AND ORIENTATION OF PIT. IF NOT CLEAR ON SITE MAPS	
(See site maps)	
ESCRIBE LOCATION AND ORIENTATION OF PIT. IF NOT CLEAR ON SITE MAPS	
ESCRIBE LOCATION AND ORIENTATION OF PIT. IF NOT CLEAR ON SITE MAPS  (See site maps)	nt-of-way of any public road?

start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is

greater, unless a variance is granted by the Commission.)

Will any excavation start at or within fifty feet (50') of any property line? (NOTE: If the answer is "yes", a safety barrier may be needed.)

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RECEIVED

# RECLAMATION PLAN - 10 CSR 40-10-20(2)(D)2.

A. REVEGETATION (Attach additional sheets	s, if needed)	JAN 2 4 2001		
REVEGETATION MIX #1	PURPOSE OR LAND USE	MISSOURI LAND	B. SE	EDING OR PLANT TIME
Mixture #1	Pasture	JECITY. VIII	~··	Fall

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Tall Fescue Red Clover Wheat or Oats	25 5 30		

VEGETATION MIX #2	PURPUSE UR LAND USE	B. SEEDING OR PLANTING TIME
Mixture #2	Pasture	Spring

# DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchard Grass Korean Lespedeza Wheat or Oats Serecea Lespedeza (On Slopes)	10 6 30 20		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. Three impoundment will be left by the final phase of mining. The impoundments will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion. In no case will the reclaimed topography exceed a 3:1 slope.

RECEIVED JAN 2 4 2001

C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES COURT AND GRADING

Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into dams to create impoundments. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

### REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"	
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	0
Agricultural (pasture, cropland, and horticultural)	14
Development (residential, industrial, and recreational)	0
Water impoundments (for wildlife, agricultural, or development)	11

MO 780-1327 (12-91)

By my signature, I attest to the following:

JAN 2 4 2001

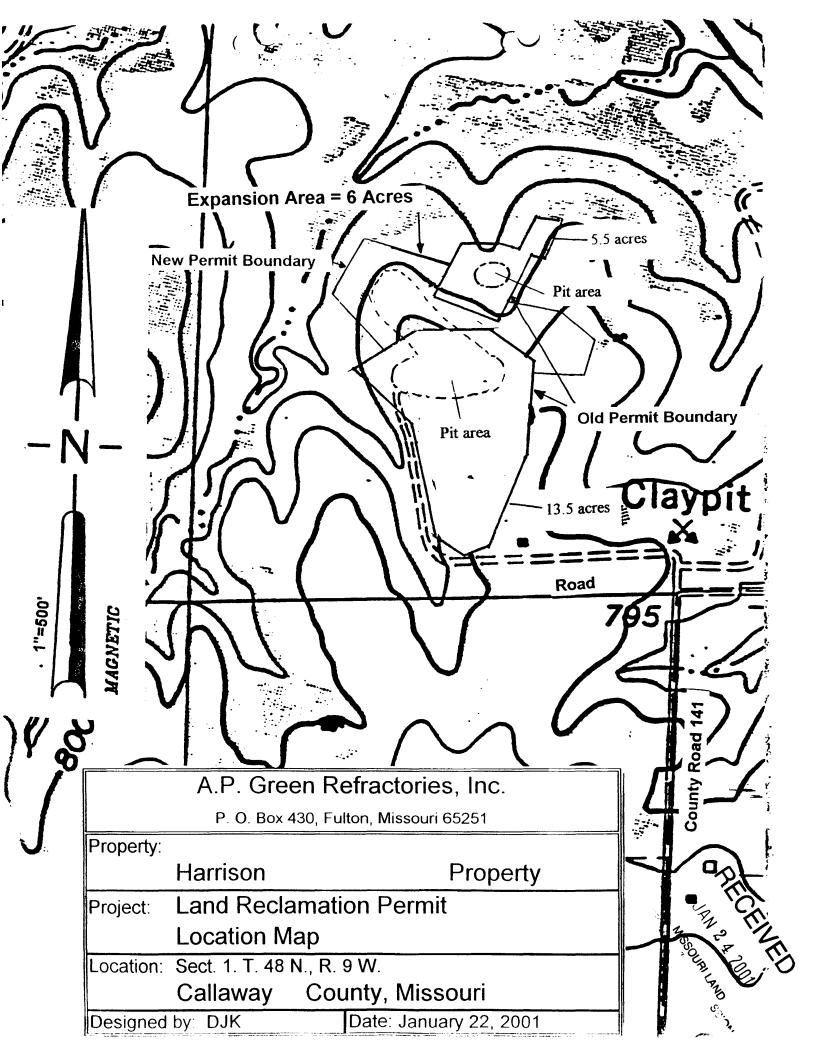
- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

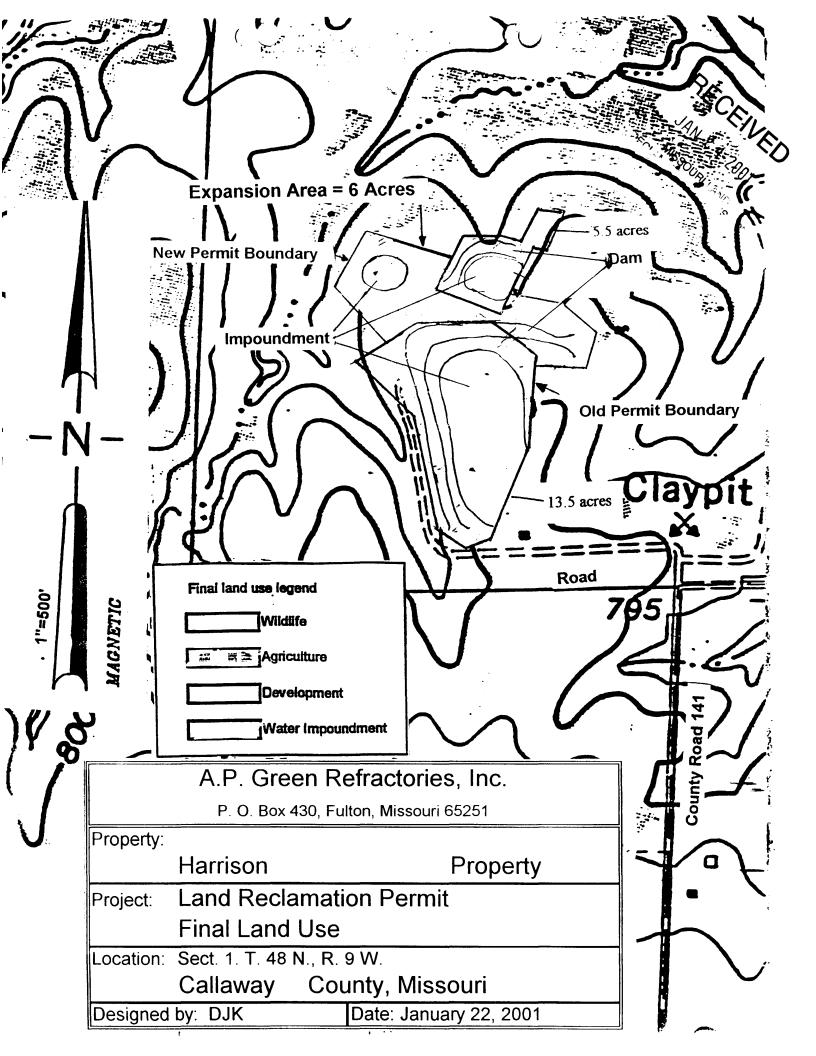
SIGNATURE OF APPLICANT		TITLE	Sectogist	-
NOTARY PUBLIC EMBOSSER SEAL	STATE MISSOURC			COUNTY (OR CITY OF ST. LOUIS)
	SUBSCRIBED AND SWORN BE	•	19 0/	USE RUBBER STAMP IN
	NOTARY PUBLIC SIGNATURE KANEN S LUTKE		MY COMMISSION EXPIRES 7/18/2003	10 110
	NOTARY PUBLIC NAME (TYPE KUSEN S J.W.	D OR PRINTED)	aren 5. Luther	
APPROVED BY (DIRECTOR'S REPRESENTATIVE)	2 /	TE APPROVED	PERMIT NUMBER	

# **RECEIVED**

JAN 2 4 2001

MISSOURI LAND





MISSOURI DEPARTMENT OWNATURAL RESOURCES 6 1999

LAND RECLAMATION COMMISSION SITE INFORMATION FORM

MISSOURI LAND
RECLAMATION COMMA

P.O. BOX 176 JEFFERSON CITY, MO 65102

	WISSION COMMISSION	
SITE NAME OR NUMBER	A COLVE	PERMIT NUMBER
Holt Estate		118
COMPANY NAME		
A. P. Green Refractories, Inc.		
COUNTY	1/4 SECTION	SECTION
Gasconade	NE 1/4	31
TOWNSHIP	RANGE	ACRES
42 N	5 W	8
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)
Fire Clay		
	<del> </del>	
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)		
Gasconade Enterprises, Inc. c\o Don Lenau	ır	
ADDRESS	<u> </u>	
RFD #2		
CITY	STATE	ZIP CODE
Owensville	МО	65066
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
MINERAL DEED	LEASE	
WARRANTY DEED	VERBAL AGREEM	ENT
OTHER (DESCRIBE):		
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)		
A. P. Green Refractories, Inc.		
ADDRESS		
P.O. Box 430		
CITY	STATE	ZIP CODE
Fulton	Missouri	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):	<u> </u>	DATE OF AGREEMENT
[V]		
X MINERAL DEED	LEASE	08/06/57
WARRANTY DEED	VERBAL AGREEM	ENT
OTHER (DESCRIBE):	· · · · · · · · · · · · · · · · · · ·	
NOTE: Each site must be sown on a map and be included in a public	notice and an approved mine plar	1.

# MISSOURI DEPARTMENT OF NATUR RESOURCES LAND RECLAMATION COMMISSION

MO 780-1327 (12-91)



Page 1

# PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

TYPE OF PLAN (CHECK ONE):		RECLAMATION LAND
SHORT TERM, FOR ONE PERMIT YEAR		RECLAMATION COMMESTIC
X LONG TERM, FOR PERIOD THROUGH DATE:	<u>12/31/2050</u>	
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	G (BY APPLICANT OR PRIOR OPERATO	DR), INCLUDING SOIL, VEGETATION, AND TOPOGRAPHY
This site was relatively flat and was being use by a hedge row. Topsoil on the site is good		crop farming. The site was bisected
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	MISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
		YES X NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVA		
Prior to topsoil removal and immediately fol control measures will be installed including basins in any combination depending on site scrapers and/or bulldozers. The topsoil will surficial material from all areas to be disturb	straw bale dikes, silt fen e specific conditions.  To be stored near the pit w	nces, rock check dams or sediment opsoil will be removed using rubber-tired vithin the permitted pit area. We will remove the
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAG	E AND PROTECTION	
Surficial material will be stored in gently slo	ping piles and will be se	eded if necessary with a cover crop

B. SPOIL	<b>○</b>
DESCRIBE METHODS AND LOC	CATION OF SPOIL PLACEMENT AND DISPOSAL
	ved using rubber tired scrapers and bulldozers and placed in storage areas around the pit. completed the spoil will be either backfilled in the excavation or used to construct a small of the pit.
	RECEIVED
	RECLAMATION COMMISSION
C. ACID MATERIALS	S COMMISSION
DESCRIBE METHODS AND EQ	UIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)
None	
None	
DIT INCORMATION (	CIVE ALL DIMENSIONS IN FEET
····	GIVE ALL DIMENSIONS IN FEET)  IENTATION OF PIT, IF NOT CLEAR ON SITE MAPS
DESCRIBE ESCATION AND ON	ENTATION OF FIT, IF NOT CLEAR ON SITE MARS
(Coo oito mano)	
(See site maps)	
YES NO	
X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)
X	Will any execution etect at or within fifty fact (FOI) of any account, line 2
	Will any excavation start at or within fifty feet (50') of any property line?  (NOTE: If the answer is "yes", a safety barrier may be needed.)

Page 2

MO 780-1327 (12-91)

RECLAMATION PLAN - 10 CSR 40-10.0. (2)(D)2.						
A. REVEGETATION (Attach additional sheets	s, if needed)					
REVEGETATION MIX #1	PURPOSE OR LAND USE	B. SEEDING OR PLANT TIME				
Mixture #1	Agriculture	Fall				

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

MISSOURI LAND RECLAMATION COMMISSION

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Tall Fescue Red Clover Wheat or Oats	25 5 30		
VEGETATION MIX #2	PURPOS	E OR LAND USE B.	SEEDING OR PLANTING TIME
Mixture #2	Row crop		Spring

# DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Generally tilled with typical agricultural farming equipment and planted or seed with equipment customarily used in row crop production.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES POUNDS/ACRE TREE OR SHRUB SPECIES

Corn 15 Grain Sorgum 8 Wheat 100 Soybeans 60			
	Grain Sorgum Wheat	8	

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

STEMS/ACRE

### **B. GRADING**

### DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. A small impoundment will be left by the final phase of mining. The impoundment will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion. In no case will the reclaimed topography exceed a 3:1 slope.

RECLAMATION TO A RECLAM

### C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

#### **GRADING**

Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into dams to create impoundments. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

### REPLACEMENT OF TOPSOIL

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES)

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

#### REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.

-12	
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	0
Agricultural (pasture, cropland, and horticultural)	6
Development (residential, industrial, and recreational)	0
Water impoundments (for wildlife, agricultural, or development)	2

-12"

MO 780-1327 (12-91)

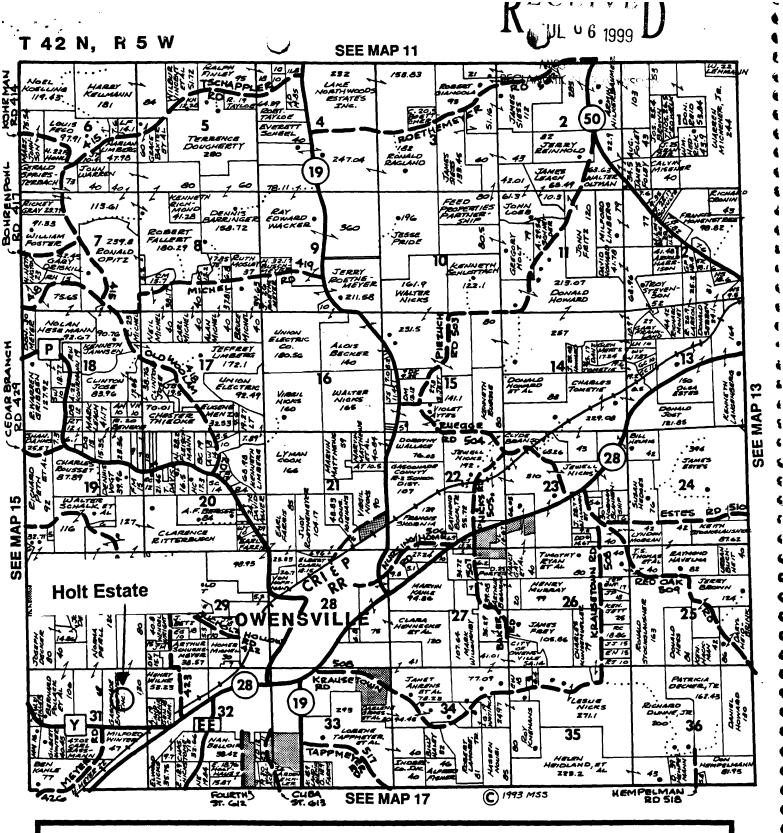
By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access. and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

RECFIVE AUG 11 1999

MISSOURI LAND
RECLAMATION COMMISSION

SIGNATURE OF APPLICANT		TITLE	
Want The	David J. Keller	Mining Supervisor - Weste	ern District Mines
NOTARY PUBLIC EMBOSSER SEAL	STATE		COUNTY (OR CITY OF ST. LOUIS)
	Missouri		Callaway
	SUBSCRIBED AND SWORN BEFORE I	AE, THIS	USE RUBBER STAMP IN
	10th DAY OF Aug	ıst 19 89\D⊑N	CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE	MY COMMISSION NOTA	RY PUBLIC
	Karen's Luthe	STATE (	F MISSOURI
	NOTARY PUBLIC NAME (TYPED OR P		AY COU <b>NTY</b>
	Karen S. Luther	MY COMMISSION	EXPIRES JULY 18, 2003
APPROVED BY (DIRECTOR'S REPRESENTATIVE)	DATE APP	ROVED PERMIT NUMBER	



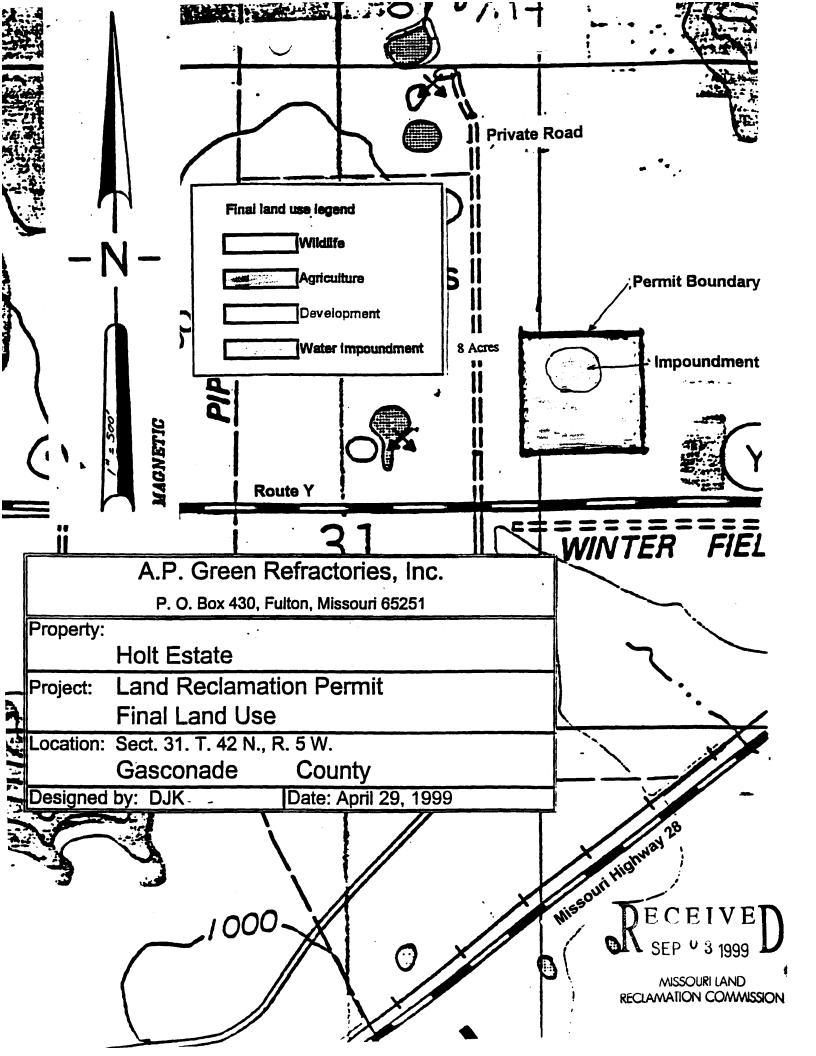


### MFA AGRI SERVICES

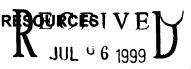
Feed, Seed, Fertilizer, Animal Health, & Farm Supplies

Route 2, Hwy. 28 West • Owensville, MO 65066 • Phone 437-2135

Fertilizer Plant 437-2138 Allen Baumstark, General Manager



### MISSOURI DEPARTMENT COMMISSION NOTICE VE JUL 6 1999 SITE INFORMATION FORM



P.O. BOX 176 JEFFERSON CITY, MO 65102

SITE NAME OR NUMBER  Hummel	MISSOFIRITAND RECLAMATION COMMISSION	PERMIT NUMBER 118
COMPANY NAME		110
A. P. Green Refractories, Inc.		
COUNTY	1/4 SECTION	SECTION
Warren	NE 1/4	34
TOWNSHIP	RANGE	ACRES
47 N	2 W	3
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		I
·		
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)
Fire Clay		
		1
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)	· · · · · · · · · · · · · · · · · · ·	
Geraldine H, Murphy et al.		
ADDRESS	And Straight ( Management on Management of Straight on Management of S	
1002 S Water St.		
CITY	STATE	ZIP CODE
Warrenton	МО	63383
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
MINERAL DEED	LEASE	
WARRANTY DEED	VERBAL AGREEM	ENT
OTHER (DESCRIBE):		
	<del></del>	
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)		
A. P. Green Refractories, Inc.		
P.O. Box 430		
CITY	STATE	ZIP CODE
Fulton	Missouri	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):	IM330ul1	DATE OF AGREEMENT
X MINERAL DEED	LEASE	12/05/61
WARRANTY DEED	VERBAL AGREEM	ENT
OTHER (DESCRIBE):		
NOTE: Each site must be sown on a map and be included in a public	notice and an approved mine plan	n.

### MISSOURI DEPARTMENT OF NATULE RESOURCES

### PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

	· · · · · · · · · · · · · · · · · · ·	
TYPE OF PLAN (CHECK ONE):		
SHORT TERM, FOR ONE PERMIT YEAR		
X LONG TERM, FOR PERIOD THROUGH DATE:	<u>12/31/2007</u>	
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	G (BY APPLICANT OR PRIOR OPERATOR), INCLUDING S	SOIL, VEGETATION, AND TOPOGRAPHY.
This site is located in a pasture with slight to of the proposed deposit. Topsoil in the area		A small clay pit existed to the east
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM.	MISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
	! INCHES	YES X NO
Prior to topsoil removal and immediately for control measures will be installed including basins in any combination depending on site scrapers and/or bulldozers. The topsoil will surficial material from all areas to be disturb	llowing any clearing of vegetation, straw bale dikes, silt fences, rock e specific conditions. Topsoil will be stored near the pit within the p	check dams or sediment be removed using rubber-tired ermitted pit area. We will remove the
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE Surficial material will be stored in gently slo to control any erosion.		cessary with a cover crop
		RECEIVED

MO 780-1327 (12-91)

MISSOURI LAND
RECLAMATION COMMISSION

B. SPOIL	
DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL	
Spoil will be placed on the perimeter of the pit to form a dam.	RECEIVED  MISSOURI LAND  RECLAMATION GOMMISSION
C. ACID MATERIAL C	
C. ACID MATERIALS DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPAL)	TED, WRITE "NONE" BELOW)
None	
PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET)	
DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS	
(See site maps)	
YES NO	
Will any excavation be at or within fifty feet (50') of the right	-of-way of any public road?
X Will any highwall consisting of unconsolidated materials be	left within fifty feet of the right-of way of and

public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is

greater, unless a variance is granted by the Commission.)

Will any excavation start at or within fifty feet (50') of any property line? (NOTE: If the answer is "yes", a safety barrier may be needed.)

X

RECLAMATION PLAN - 10 CSR 40	0-10.C 2)(D)2.	
A. REVEGETATION (Attach addit	ional sheets, if needed)	
REVEGETATION MIX #1	PURPOSE OR LAND USE	B. SEEDING OR PLANT TIME
Mixture #1	Wildlife	Fall
DESCRIBE METHODS AND EQUIPMENT	TO BE USED FOR SEEDING OR PLANTING	

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

RECEIVED

MISSOURI LAND RECLAMATION COMMISSION

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECI	STEMS/ACRE
Orchardgrass Timothy Red Clover Korean Lespediza Wheat or Oats Serecea Lespedeza (on slopes)	10 10 5 5 30 10		
VEGETATION MIX #2	PURPOSE	OR LAND USE	B. SEEDING OR PLANTING TIME
Mixture #2	Wildlife		Spring

### DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchard Grass Korean Lespedeza Wheat or Oats Serecea Lespedeza (On Slopes)	10 6 30 20		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

### B. GRADING

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. A small impoundment will be left by the final phase of mining. The impoundment will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion.



RECLAMATION COMMISSION

C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

#### **GRADING**

Grading will be done as mining advances. The spoil will either be backfilled in previously mined areas or put into a dam to create an impoundment. Final grading of all disturbed areas will be completed within one year after mining. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

#### REVEGETATION

The site will be seeded in the fall or spring after topsoil replacement.

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"	
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	2
Agricultural (pasture, cropland, and horticultural)	0
Development (residential, industrial, and recreational)	0
Water impoundments (for wildlife, agricultural, or development)	1

MO 780-1327 (12-91)

By my signature, I attest to the following:

• :

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.



MISSOURI LAND
RECLAMATION COMMISSION

SIGNATURE OF APPLICANT		TITLE	
Llung 1 ha	David J. Keller	Mining Supervisor - Weste	ern District Mines
NOTARY PUBLIC EMBOSSER SEAL	STATE		COUNTY (OR CITY OF ST. LOUIS)
	Missouri		Callaway
	SUBSCRIBED AND SWORN BEFORE M	E, THIS	USE RUBBER STAMP IN
	10th DAY OF Augu	st 19 99 KAF	ENS. LOTHER
-	NOTARY PUBLIC SIGNATURE	MY COMMISSION NC	TARY PUBLIC
	Kasen & Luche-	STAT	E OF MISSOURI
	,	7/18/2002	AWAY COUNTY
	NOTARY PUBLIC NAME (TYPED OR PR	INTED) P COMMIS	ON EXPIRES JULY 18, 2003
	Karen S. Luther		
AFFROVED BY (DIRECTOR'S REPRESENTATIVE)	DATE APPR	OVED PERMIT NUMBER	

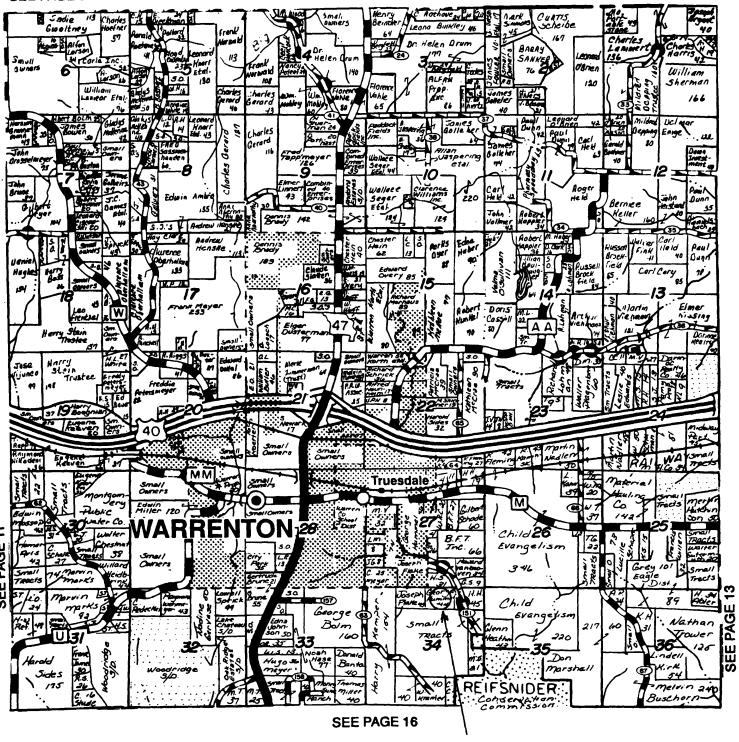
# Township 47 Range 2W



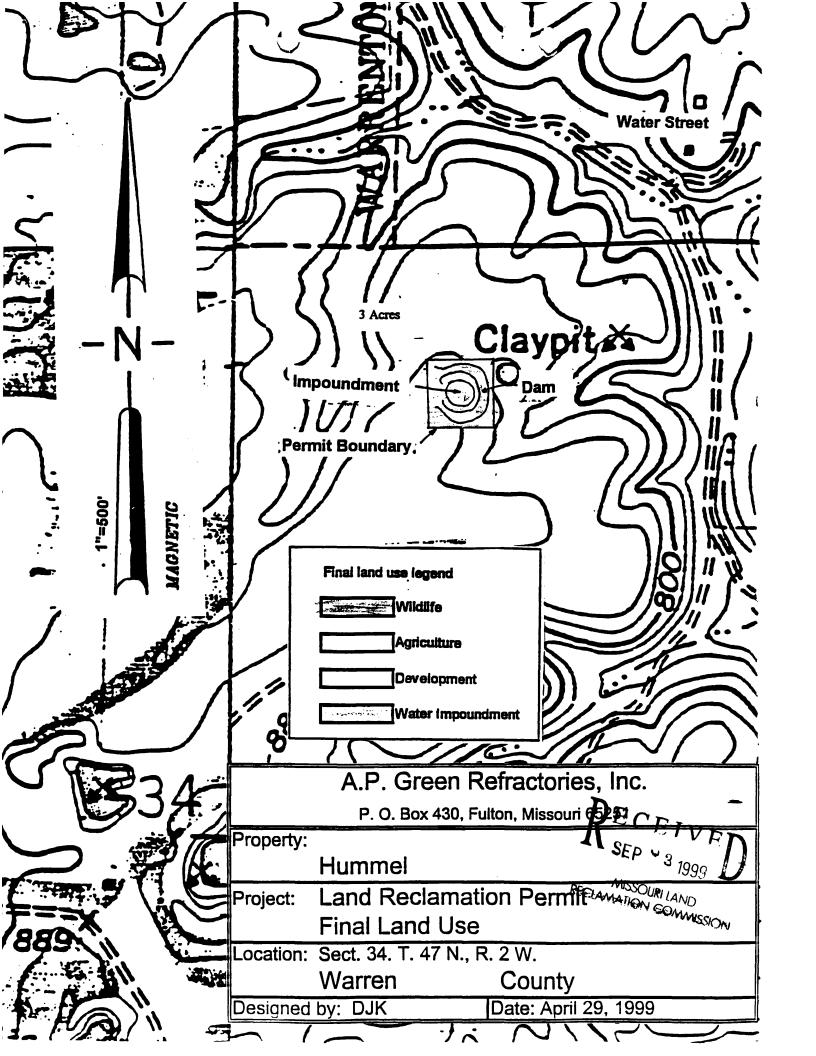
MISSOURI LAND RECLAMATION COMMISSION:

**SEE PAGE 9** 

LINCOLN CO.



**Hummel** 



## MISSOURI DEPARTMENT C NATURAL RESOURCES E D LAND RECLAMATION COMMISSION TO JUL 0 6 1999 SITE INFORMATION FORM

P.O. BOX 176 JEFFERSON CITY, MO 65102

	MICCOLD.	
TE NAME OR NUMBER  RECLAMATION COMMISSION  PER		PERMIT NUMBER
Vuilcott #1	cott #1 118	
COMPANY NAME		
A. P. Green Refractories, Inc.		
COUNTY	1/4 SECTION	SECTION
Osage	SW 1/4	21
TOWNSHIP	RANGE	ACRES
43 N	8 W	5
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)
Fire Clay		
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)		
Kuster Real Estate c/o Mark Kuster		
ADDRESS		
Kuster Building		
CITY	STATE	ZIP CODE
Linn	МО	65051
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
MINERAL DEED	LEASE	
WARRANTY DEED	VERBAL AGREEN	/FNT
OTHER (DESCRIBE):		
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)		
A. P. Green Refractories, Inc.		
ADDRESS		
P.O. Box 430		
CITY	STATE	ZIP CODE
Fulton	Missouri	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
X MINERAL DEED	LEASE	02/21/28
WARRANTY DEED	VERBAL AGREEN	MENT
OTHER (DESCRIBE):		
NOTE: Each site must be sown on a map and be included in a	public notice and an approved mine pla	n.

### MISSOURI DEPARTMENT OF NATUI RESOURCES LAND RECLAMATION COMMISSION



### PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES

TYPE OF PLAN (CHECK ONE):		
SHORT TERM, FOR ONE PERMIT YEAR		
X LONG TERM, FOR PERIOD THROUGH DATE:	12/31/2050	
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTIN	IG (BY APPLICANT OR PRIOR OPERATOR), INCLUDING S	COIL, VEGETATION, AND TOPOGRAPHY.
This site was an partly open field and partly the open timber. Topsoil was generally of	• • •	_
	MISSO	EIVED  1 1 1999  DURI LAND  TO COMMISSION
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	MMISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
	2 INCHES	YES X NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOV	/AL	
Prior to topsoil removal and immediately for control measures will be installed including basins in any combination depending on siscrapers and/or bulldozers. The topsoil will surficial material from all areas to be disturbed.	straw bale dikes, silt fences, rock of te specific conditions. Topsoil will I Il be stored near the pit within the p	check dams or sediment be removed using rubber-tired ermitted pit area. We will remove the
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORA		
Surficial material will be stored in gently slot to control any erosion.	oping piles and will be seeded if ne	cessary with a cover crop

B. SPOIL ,	•	
DESCRIBE METHODS AND LOCA	TION OF SPOIL PLACEMENT AND DISPOSAL	
	ed in piles around the pit during the mining process. This spoil will be placed in the lower end a dam during reclamation.	
	RECEIVED	
	MISSOURI LAND RECLAMATION COMMISSION	
C. ACID MATERIALS		
DESCRIBE METHODS AND EQUI	PMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)	
None		
710110		
PIT INFORMATION (G	IVE ALL DIMENSIONS IN FEET)	
DESCRIBE LOCATION AND ORIE	NTATION OF PIT, IF NOT CLEAR ON SITE MAPS	
(See site maps)		
YES NO		
	Will any every etian be at an within 6th, fact (501) of the right of years of any artists and 2	
X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?	
X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may	
	start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet	
	or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)	
X	Will any excavation start at or within fifty feet (50') of any property line?  (NOTE: If the answer is "yes", a safety barrier may be needed.)	

RECLAMATION PLAN - 10 CSR 40-10. (2)(D)2.				
A. REVEGETATION (Attach additional sheets, if needed)				
REVEGETATION MIX #1	PURPOSE OR LAND USE	B. SEEDING OR PLANT TIME		
Mixture #1	Development	Fall		

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

> MISSOURI LAND RECLAMATION COMMISSION

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIE	S STEMS/ACRE
Tall Fescue Red Clover Wheat or Oats	25 5 30		
VEGETATION MIX #2  Mixture #2	PURPOSI Developn		3. SEEDING OR PLANTING TIME  Spring

### DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch

will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchard Grass Korean Lespedeza Wheat or Oats Serecea Lespedeza (On Slopes)	10 6 30 20		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

### B. GRADING

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Areas backfilled with spoil from the site will be graded to match the surrounding topography and covered with topsoil. A small impoundment will be left by the final phase of mining. The impoundment will be graded to traversable slopes above the anticipated water level using bulldozers. Terraces and diversion ditches will be constructed as necessary to control erosion.

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MISSOURI LAND RECLAMATION COMMISSION

### C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

#### GRADING

Grading will be done when mining is complete. The spoil will be backfilled in previously mined areas to form a dam and impoundment. Final grading of all disturbed areas will be completed within one year after mining ends. Areas affected, and no longer needed as part of the active operation will graded within one year of the expiration of the permit during which the disturbance occurred.

### REPLACEMENT OF TOPSOIL

Topsoil will be spread using rubber tired scrapers and/or bulldozers after mining is completed as described in accordance whith MO 10CSR-40.10.050 (A)(10)(A).

### REVEGETATION

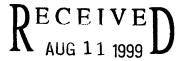
The site will be seeded in the fall or spring after topsoil replacement.

AVERAGE DEPTH OF REPLACEMENT TOPSOIL (INCHES) -12"	
D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	0
Agricultural (pasture, cropland, and horticultural)	0
Development (residential, industrial, and recreational)	4
Water impoundments (for wildlife, agricultural, or development)	1

MO 780-1327 (12-91)

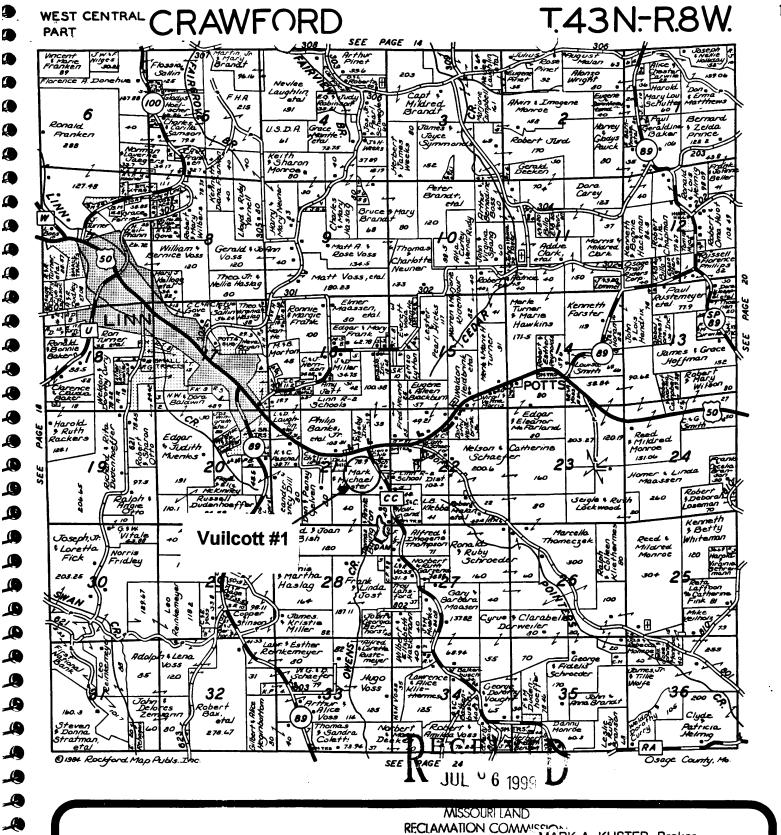
By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.



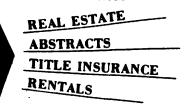
MISSOURI LAND
RECLAMATION COMMISSION

SIGNATURE OF APPLICANT		TITLE	
41 land 1 The	David J. Keller	Mining Supervisor - Weste	ern District Mines
NOTARY PUBLIC EMBOSSER SEAL	STATE		COUNTY (OR CITY OF ST. LOUIS)
	Missouri		Callaway
	SUBSCRIBED AND SWORN BEFORE M	IE, THIS	USE RUBBER STAMP IN
	10th DAY OF Augu	ıst <sup>19</sup> 99 KA	CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE		OTARY PUBLIC
	Laun's Luchu	) EXPIRES STA	TE OF MISSOURI LAWAY COUNTY
	NOTARY PUBLIC NAME (TYPED OR PR	MY COMM	SSION EXPIRES JULY 18, 2003
AFFROVED BY (DIRECTOR'S REPRESENTATIVE)	DATE APPR	ROVED PERMIT NUMBER	





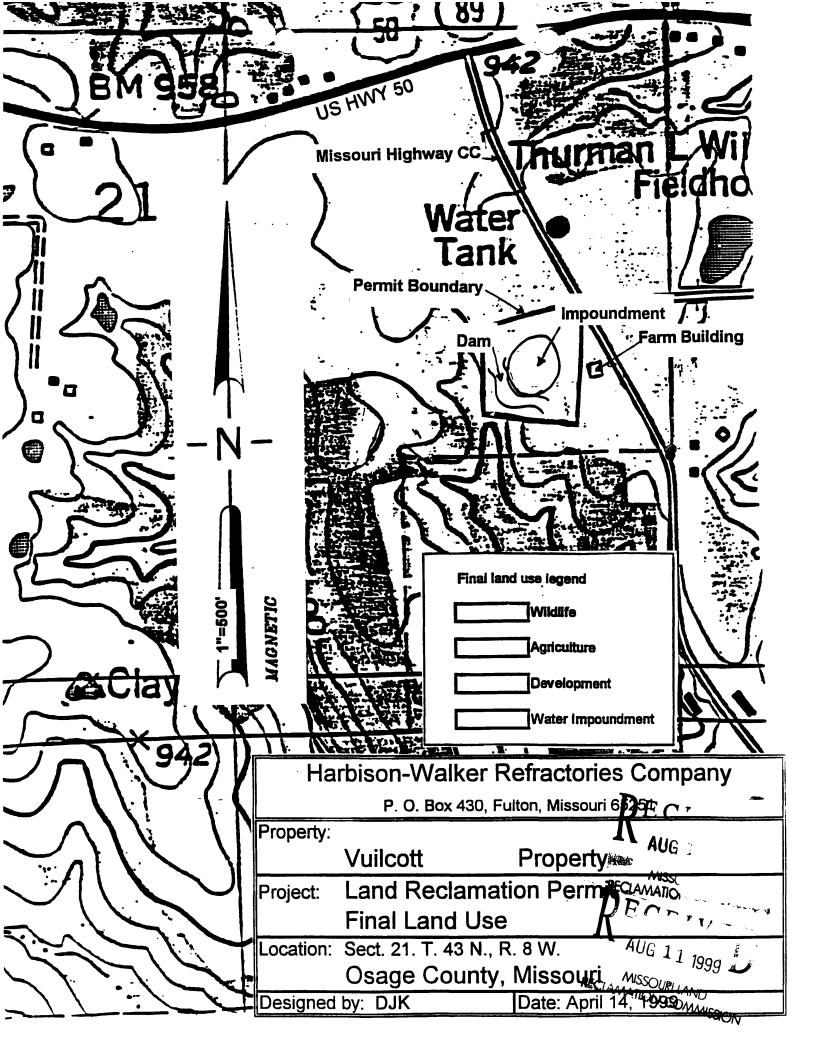
KUSTER BUILDING P.O. BOX 117 LINN, MISSOURI 65051



MARK A. KUSTER, Broker CECIL W. KUSTER, GRI, Broker

OFFICE: (314) 897-2122 HOME: (314) 897-4106 or 897-2296





### MISSOURI DEPARTMEN > NATURAL RESOURCES

LAND RECLAMATION COMMISSION

**SITE INFORMATION FORM** 

OCT 1 7 2001

JEFFERSON CITY, MO 65102

P.O. BOX 176

	<u> </u>	T
SITE NAME OR NUMBER	MISSOURI LAIND	PERMIT NUMBER
Wilson Heirs Pits 1 and 3	TECLAMATION COM	118
COMPANY NAME		
A. P. Green Refractories, Inc.		•
COUNTY	1/4 SECTION	SECTION
Franklin	E 1/2	20
TOWNSHIP	RANGE	ACRES
42 N	3 W	5
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FOR GRAVEL SITES)
Fire Clay		
NAME OF LANDOWNER (ATTACH A LIST IF MORE THAN ONE)		
A. P. Green Industries, Inc.		
ADDRESS		
P. O. Box 430		
сту	STATE	ZIP CODE
Fulton	МО	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):	<u> </u>	DATE OF AGREEMENT
MINERAL DEED	LEASE	
WARRANTY DEED	VERBAL AGREEM	ENT
OTHER (DESCRIBE):		
<u> </u>		
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE)	······	
A. P. Green Refractories, Inc.		
ADDRESS	<del></del>	
P.O. Box 430		
СІТҮ	STATE	ZIP CODE
Fulton	Missouri	65251
SOURCE OF RIGHT TO MINE (CHECK ONE):		DATE OF AGREEMENT
MINERAL DEED	LEASE	05/04/61
X WARRANTY DEED	VERBAL AGREEM	ENT
OTHER (DESCRIBE):		
NOTE: Each site must be sown on a map and be included in a publi	c notice and an approved mine pla	n.

## MISSOURI DEPARTMENT OF NA. AL RESOURCES LAND RECLAMATION COMMISSION PERMIT APPLICATION FOR INDUSTRIAL MINERAL MINES



### **RECEIVED**

OCT 1 7 2001

TYPE OF PLAN (CHECK ONE):		MISSOURI LAND
SHORT TERM, FOR ONE PERMIT YEAR		RECLAMATION COMMISSIO
X LONG TERM, FOR PERIOD THROUGH DATE:	12/31/2007	
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	G (BY APPLICANT OR PRIOR OPERATOR)	), INCLUDING SOIL, VEGETATION, AND TOPOGRAPHY
These two pits were located in gently to mo mature standing timber. Topsoil in the area		· · · · · · · · · · · · · · · · · · ·
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COM	IMISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
12	2 INCHES	YES X NO
control measures will be installed including basins in any combination depending on sit scrapers and/or bulldozers. The topsoil will surficial material from all areas to be disturb	e specific conditions. Top I be stored near the pit wit	psoil will be removed using rubber-tired thin the permitted pit area. We will remove the
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAG	GE AND PROTECTION	
Surficial material will be stored in gently slot to control any erosion .	oping piles and will be see	ded if necessary with a cover crop

8. SPÓIL	
DESCRIBE METHODS AND LOCA	TION OF SPOIL PLACEMENT AND DISPOSAL
Spoil from the exfor a dam.	cavation will be either backfilled into the pit or placed on the down hill side of the pit and used
	OCT 1 7 2001
	MISSOURI LAND RECLAMATION COMMISSION
C. ACID MATERIALS	
ESCRIBE METHODS AND EQUIP	MENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)
None	
PIT INFORMATION (G	IVE ALL DIMENSIONS IN FEET)
· · · · · · · · · · · · · · · · · · ·	IVE ALL DIMENSIONS IN FEET)  WE ALL DIMENSIONS IN FEET)  WE ALL DIMENSIONS IN FEET)
· · · · · · · · · · · · · · · · · · ·	
· · · · · · · · · · · · · · · · · · ·	
DESCRIBE LOCATION AND ORIE	
(See site maps)	
(See site maps)  YES NO	TATION OF PIT, IF NOT CLEAR ON SITE MAPS
(See site maps)	
(See site maps)  YES NO	TATION OF PIT, IF NOT CLEAR ON SITE MAPS
YES NO	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?  Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and
YES NO	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?  Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of way of and public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet or twenty-five feet plus on an one-half (1-1/2) times the depth of unconsolidated material, whichever is

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RECLAMATION PLAN - 10 CSR 40-1 (2)	(D)2.	
A. REVEGETATION (Attach additional sheets	s, if needed)	
REVEGETATION MIX #1	PURPOSE OR LAND USE	B. SEEDING OR PLANT TIME
Mixture #1	Wildlife	Fall

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

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OCT 1 7 2001

MISSOURI LAND RECLAMATION COMMISSION

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SF	PECIES STEMS/ACRE
Orchardgrass Timothy Red Clover Korean Lespediza Wheat or Oats Serecea Lespedeza (on slopes)	10 10 5 5 30 10		
VEGETATION MIX #2	PURPOSE	OR LAND USE	B. SEEDING OR PLANTING TIME
Mixture #2	Wildlife		Spring

### DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring or fall after finish grading the seed mix will be either drilled in with a no-till drill or broadcast. Re-seeding will be done as needed to achieve a suitable stand.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1

SEEDING SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Orchard Grass Korean Lespedeza Wheat or Oats Serecea Lespedeza (On Slopes)	10 6 30 20		

The second section of the second

which while it

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

B. GRADING	/ <b>W</b>	( 🔾	
DESCRIBE PROPOSED RECLA	MED TOPOGRAPHY, INCLUDIN	IG SLOPES	
and covered with to The impoundment	opsoil. A small impound will be graded to travers	be graded to match the surround Iment will be left by the final phasable slopes above the anticipals will be constructed as necessa	ase of mining. ted water level using
			OCT 1 7 2001
			MISSOURI LAND RECLAMATION COMMISSION
C. DESCRIBE THE GENE	RAL SEQUENCE AND TIM	IING OF THE FOLLOWING ACTIV	ITIES
GRADING			
areas or put into da completed within o	ams to create impoundme ne year after mining. Ar Il graded within one year	The spoil will either be backfillenents. Final grading of all disture reas affected, and no longer nere of the expiration of the permit	rbed areas will be eded as part of the
REPLACEMENT OF TOPSOIL			
	_	crapers and/or bulldozers after r SR-40.10.050 (A)(10)(A).	mining is completed
REVEGETATION			
The site will be see	ded in the fall or spring	after topsoil replacement.	
AVERAGE DEPTH OF REPLACE	EMENT TOPSOIL (INCHES)	-12"	
D. USE OF LAND WHEN RECLAIMED		<b>7</b>	
Estimate acreage of each	land use below, after reclan	nation:	ESTIMATED ACRES:
Wildlife (forest or other ha	ıbitat with livestock exclude	d)	2
A	land and bank the N		

D. USE OF LAND WHEN RECLAIMED  Estimate acreage of each land use below, after reclamation:	ESTIMATED ACRES:
Wildlife (forest or other habitat with livestock excluded)	2
Agricultural (pasture, cropland, and horticultural)	0
Development (residential, industrial, and recreational)	1
Water impoundments (for wildlife, agricultural, or development)	2

MO 780-1327 (12-01)

### By my signature, I attest to the following:

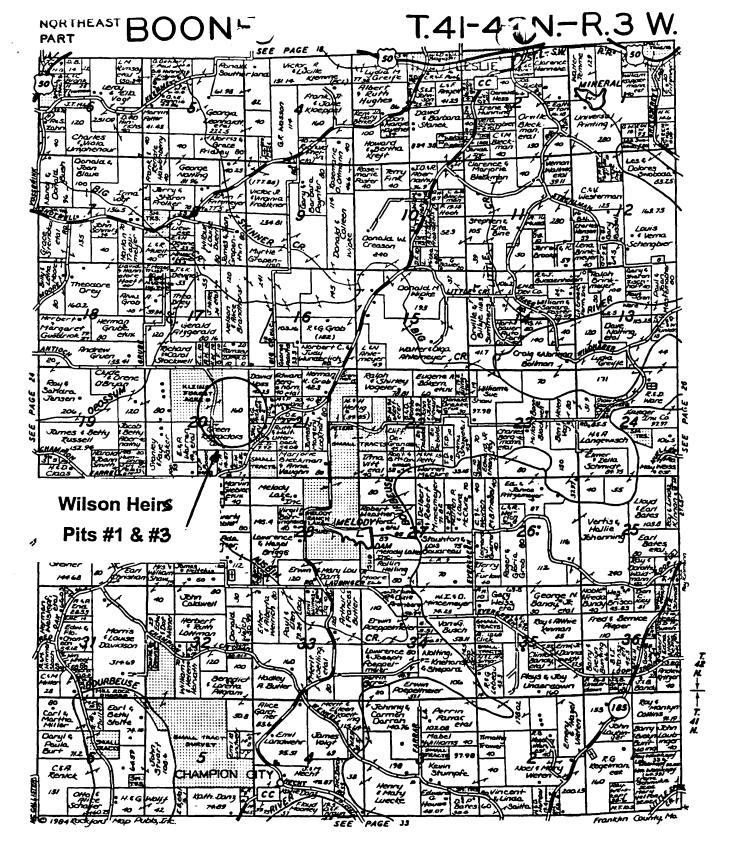
- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intends to mine in accordance with this Mine Plan Porm, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

**RECEIVED** 

OCT 1 7 2001

MISSOURI LAND
RECLAMATION COMMISSIO

SIGNATURE OF APPLICANT			TITLE				
1 turl 1 The	David J. Keller			Mining S	upervis	ern District Mines	
NOTARY PUBLIC EMBOSSER SEAL	STATE						COUNTY (OR CITY OF ST. LOUIS)
	Missouri				Callaway		
	SUBSCRIBED AND SWORN BEFORE ME, THIS			USE RUBBER STAMP IN			
	10th DAY OF	Augus	st			99	CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE  KARLES S LUCSICE  NOTARY PUBLIC NAME (TYPED OR PRINTED)  Karen S. Luther			MY COM			N S. LUTHER
			EXPIR	EXPIRES			RY PUBLIC
							OF MISSOURI
			NTED)	CALLA		CALLA	WAY COUNTY
					Wix (	COMMISSI	N EXPIRES JULY 18, 2003
APPROVED BY (DIRECTOR'S REPRESENTATIVE)		DATE APPR	OVED	P	ERMIT N	UMBER	
RILLION					6	0118	



### **RECEIVED**

OCT 1 7 2001

MISSOURI LAND RECLAMATION CC 2008

